ATTITUDES OF NURSES TO EUTHANASIA

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Submitted in accordance with the requirements for the degree of

Doctor of Philosophy

The University of Leeds

Institute of Psychological Sciences

Faculty of Medicine and Health

September 2006

Acknowledgements

Firstly I would like to thank Mark Conner and Louise Dye for their supervision of this thesis. I am indebted to them both for their advice, encouragement and seemingly endless patience through all stages of this PhD.

Secondly I would like to acknowledge the support of my learning and teaching colleagues in the School of Healthcare particularly the Advanced Diploma Programme Managers, Sue Baldwin, Gill Fairchild, Steve Howarth and Maxine Robshaw whose support was essential in completing the thesis. Also the members of the Healthcare Ethics and Law team in the School of Healthcare, particularly Martin Towers, who have covered teaching sessions to allow me time for data collection and writing. Without the generosity and support of my colleagues, this thesis would not have been completed.

Special thanks to my partner Michael and other members of my family and friends who have been with me through what has seemed a very long journey. Also to my colleagues and friends in the School of Healthcare who have been interested in the development of this thesis particularly Joan Maclean and David Clarke for being willing to listen as I talked things through, especially during the difficult times.

Finally, and most importantly, thank you to all the nurses who participated in the studies, particularly those in the Intensive Care Units, hospices and nursing homes who so generously gave their time to help me with this research.

Abstract

Active euthanasia remains unlawful in the UK, but several high profile cases, such as that of Cox (Regina v Cox, 1992) and Pretty (House of Lords, 2001) have maintained interest in the subject. Attempts were also made to change the law in February 2003, when Lord Joffe introduced an assisted suicide bill in the House of Lords. Euthanasia is an important issue for practising nurses as research and technological advances allow patients to be resuscitated, given new treatments and kept alive using artificial means. Nurses are the largest group of health workers in the United Kingdom (UK) whose role encompasses the care of people at the end of life and thus, the overall aim of this thesis was to investigate the attitudes of UK nurses to active voluntary euthanasia (AVE), that is taking deliberate measures to end the life of a terminally ill patient. Two further aims were; to investigate similarities and differences in attitudes to euthanasia of nurses working in differing clinical areas, and to evaluate the impact of research design and data collection methods on attitudes towards euthanasia. To achieve these aims, four studies were carried out. Study 1 used focus groups to identify the concepts registered nurses consider to be important in the euthanasia debate. Content analysis of the data revealed categories and sub-categories to be used as stimulus materials in future studies. In Study 2, an anonymous Internet based questionnaire consisting of questions derived from data collected in Study 1, the Euthanasia Ideology Scale (Adams, Bueche, & Schvaneveldt, 1978), and the Moral Judgment Test (Lind, 1999) was used to survey nurses' attitudes. Analysis of the data revealed three factors that UK nurses consider important in the euthanasia debate; a) nurses' concerns about administering euthanasia; b) patient control and the alleviation of suffering; and c) conditions for administering euthanasia. Also using the data obtained in Study 1 to develop a Q set for sorting, Study 3 used Q methodology to explore the attitudes of intensive care, hospice and nursing home nurses. Three understandings of nurses' attitudes to euthanasia were demonstrated in the findings; a) cautiously supportive, b) against euthanasia, and c) supportive of patient autonomy and some differences observed based upon clinical speciality. To investigate this further, Study 4 applied the theory of planned behaviour, to focus specifically on the influence of clinical speciality on nurses' attitudes. While a positive attitude to euthanasia was the strongest predictor of intentions, differences were found across clinical specialities and were influenced by the strength of the nurses' religious beliefs. The suitability of the methods for investigating ethical questions empirically are evaluated and recommendations made for further research.

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Chapter 1: Introduction

1.0 Introduction

The overall aim of this thesis was to investigate the attitudes of nurses working in the United Kingdom (UK) to active voluntary euthanasia (AVE), that is taking deliberate measures to end the life of a terminally ill patient. This chapter introduces the controversy surrounding euthanasia and describes the legal position on euthanasia and assisted suicide in the UK. Findings from studies of the UK general public are reviewed along with studies of doctors' and nurses' attitudes to euthanasia from the national and international literature. There are acknowledged difficulties in carrying out research into attitudes to euthanasia and hence the review of findings from the published studies is followed by a methodological review. This methodological review examines the research design and data collection methods used in the published studies, problems with understanding definitions of euthanasia and the measurement of attitudes. The chapter concludes with a summary of the subsequent chapters in the thesis.

1.1 Euthanasia in the United Kingdom

Euthanasia, derived from the Greek words *eu* and *thanatos* means literally, 'a good death'. In the *Phaedo*, Plato recounts the 'good' death of Socrates who having been convicted of impiety and corruption of the young, chooses to die by taking hemlock rather than escape his prison cell (Plato, 1975). In contemporary society this literal interpretation of a good death has changed in that the term euthanasia is usually understood to mean mercy killing. 'Active euthanasia' is defined as a deliberate act bringing about the death of another, while 'passive euthanasia' refers to allowing

someone to die by withdrawing or withholding treatment. Other definitions of euthanasia depend upon consent such that euthanasia performed at the patient's request is described as voluntary, while euthanasia carried out without the request of the patient is involuntary. The term non-voluntary is used in situations where the person is incapable of giving consent.

While all forms of euthanasia remain controversial, involuntary euthanasia in recent history was associated with the Nazi death programmes during World War II and universally condemned. Central to the controversy is whether individuals should be allowed to end their lives if they choose to do so. In the UK, individuals have been able to lawfully take their lives since 1961 when section 1 of the Suicide Act decriminalised suicide (Pattinson, 2006). People who are terminally ill can therefore, end their lives if they have the means and ability to do so. However, the debate is made more complex because few have the means or ability to commit suicide and therefore, would need to involve others (most notably health professionals) in what are currently unlawful acts. Proponents of euthanasia (such as members of the UK organisation Dignity in Dying) campaign for changes to be made in the law to allow health professionals to administer medication to terminally ill patients with the explicit intention of killing them (active voluntary euthanasia) or to prescribe medication for the patient to take themselves (physician assisted suicide).

Euthanasia is an important issue for all professionals in clinical practice as research, and technological advances allow patients to be resuscitated, given new treatments and kept alive using artificial means. In some instances, instead of asking 'can we treat the patient?' a more appropriate question may be 'should we treat the patient?'

The morality of euthanasia and the merits or otherwise of changing the law are debated by healthcare professionals and also in the wider public arena. Nurses are the largest group of health workers in the UK whose role encompasses the care of people at the end of life in a variety of institutional and community based settings. While this care includes fundamental caring activities such as the provision of hygiene, comfort and nutrition, the role of the nurse is changing to work across professional boundaries and skill share with doctors. Examples of these changes are clearly set out in the ten key roles for nurses within the NHS Plan and include initiatives such as running clinics, ordering diagnostic investigations and prescribing medicines and treatment (Department of Health, 2000). This broadening of nursing responsibility means that the attitudes of nurses to euthanasia are of particular importance individually, because of their close involvement and experience in the care of the dying patient, and collectively, because of their influence upon healthcare policy and practice.

In English law deliberately taking another's life is murder and carries a mandatory life sentence. While taking one's own life is no longer a criminal offence, helping another to do so is, and if found guilty the person may face imprisonment for up to fourteen years (Pattinson, 2006). The consent of the patient, their health status, who carries out the act and what their intentions are all irrelevant, as in law euthanasia is seen as no different to any other deliberate killing. However, the courts do recognise the doctrine of double effect, that is, a doctor is permitted to administer pain relief to a patient even if this shortens their life so long as the doctor's primary motive is to relieve suffering and not kill the patient (Grubb, 2001). Since 1936, several unsuccessful attempts have been made to introduce legislation in Parliament to allow voluntary euthanasia or repeal clauses in the Suicide Act culminating in the most recent attempt

by Lord Joffe in 2005 (House of Lords, 2005). The ethical, legal and clinical implications of euthanasia and withholding treatment were also debated by a Select Committee of the House of Lords in 1993, but the committee report recommended that there be no change in the law to permit euthanasia or assisted suicide (House of Lords (1994).

While active euthanasia remains unlawful in the UK, several high profile cases reported in the media have ensured interest in the subject continues. Such cases include that of Dr Cox, a consultant rheumatologist found guilty of attempted murder following administration of a lethal dose of potassium chloride to a patient (Regina v Cox, 1992) and that of Dianne Pretty, a woman with motor neurone disease who unsuccessfully sought leave from the courts for her husband to assist her suicide without fear of prosecution (House of Lords, 2001). More recently, terminally ill people from the UK have travelled to Switzerland to use the services of Dignitas, a euthanasia group that claims to offer a dignified death to terminally ill people. To date (2006), Dignitas has helped thirty British people end their lives since it began in 1998 and several of these cases have been reported in the media and doctors and the patient's relatives questioned by police over their role in the suicide (Leidig, 2005). In February 2003, an assisted suicide bill was introduced by Lord Joffe in the House of Lords. The bill was eventually blocked in May 2006 as peers backed an amendment to delay the bill by six months, but Lord Joffe has plans to reintroduce it at a later date (Dyer, 2006). Euthanasia therefore, remains a controversial and widely debated subject and attempts continue to change legislation to allow it to be practiced.

1.2 Attitudes of the general public to euthanasia

Surveys of public opinion have periodically been published in newspapers, magazines and professional journals, and overall suggest that the general public is in favour of voluntary euthanasia but health care professionals view the practice negatively. For example, attitudes to euthanasia are surveyed in the 13th British Social Attitudes Report, within almost 3500 interviews from a nationwide sample. Seven hypothetical situations where euthanasia could be considered an option were described. While only five percent of those interviewed opposed euthanasia in all the described circumstances, 86% of respondents thought that euthanasia should definitely or probably be allowed by law for those who are incurable and never expected to regain consciousness. A total of 80% of respondents thought that it should be allowed for those dying from incurable and painful illness when requested by the patient (Donnision & Bryson, 1996).

A survey of public and medical opinion carried out at Glasgow University's Institute of Law and Ethics in Medicine also showed strong support for euthanasia amongst the general public. In a sample of 986 adults, 80% agreed that human beings should have the right to choose when to die. However, there were differences in the responses from members of the public and those from doctors. While 42% of the members of the public favoured voluntary euthanasia and 28% assisted suicide, 43% of doctors favoured assisted suicide and 19% voluntary euthanasia (McLean & Britton, 1996).

More recent polls of the British public continue to show support for some form of assisted dying. A YouGov survey of 2,000 people carried out on behalf of Dignity in Dying (The UK campaign organisation for voluntary euthanasia) in May 2006

indicated that 76% of respondents thought that medically assisted dying should be available for those that want it (Dignity in Dying, 2006). However, the results were less conclusive from a comparative study that used data from the European Values Study (EVS) to compare attitudes to euthanasia in 33 European countries. The EVS questionnaire consisted of 300 questions, but for this analysis only those variables associated with euthanasia were included. No common European attitude toward euthanasia was discovered. From a total of 1000 respondents from the UK, the mean score for acceptance of euthanasia was 4.99 (on a scale of 1-10) and subsequently the UK was classified in the group of countries that had certain reservations. However, the mean scores for other countries such as the Netherlands, Denmark, France and Belgium were higher and thus, classified as countries where the general public were relatively accepting of euthanasia (Cohen et al., 2006).

1.3 Doctors' attitudes to euthanasia

Several international studies have been published examining the opinions of doctors to euthanasia but there are difficulties in drawing conclusions from the data. Only two countries, the Netherlands and Belgium currently have legislation permitting doctors to perform euthanasia, although the state of Oregon in the United States (US) allows physician assisted suicide (PAS). A review of the empirical data from 24 published studies on US doctors' attitudes to euthanasia and PAS showed that typically fewer than half of the respondents supported euthanasia or PAS and that most physicians did not find either to be ethical (Emanuel, 2002). A more recent systematic review of 39 published studies of US physicians' attitudes to euthanasia and PAS showed a large variation in the acceptance of euthanasia that ranged between 23% to 63% (Dickinson, 2005). However, within the review difficulties with question wording and

definitions are noted and a lack of consistency in the measures used makes data comparison difficult across the studies.

Even in the Netherlands and Belgium where legislation exists permitting euthanasia there is not a great demand for the practice, and not all doctors are willing to carry it out. In the Netherlands the practice of euthanasia has been reviewed in 1990, 1995 and 2001 (Onwuteaka-Philipsen et al., 2003). In 1990, 64% of a sample of 405 Dutch doctors agreed that people have a right to decide about their own life, but this had fallen to 56% (of 410 doctors) in 2001. Onwuteaka-Philipsen et al. concluded that despite being lawful, over ten years doctors appear to be more restrictive about euthanasia and less accepting of the practice.

The British Medical Association (BMA) whilst issuing advice to doctors on withholding and withdrawing treatment and the use of living wills, was firmly opposed to voluntary euthanasia until June 2005. At its Annual General Meeting (AGM) that year, members voted to withdraw their opposition to the legalisation of assisted dying, and stated that the issue should be decided by parliament and society (Sommerville, 2005). However, the change was short lived as at the AGM in 2006, members voted to change the organisation's stance back to one of opposition. While the BMA may be respected as representing medical opinion, doctors are not united in their views of euthanasia and other forms of assisted dying. For example, in a review of published polls of doctor's opinions, The House of Lords Select Committee on Assisted Dying found that support for legislation permitting assisted dying ranged from 30% to 60% (House of Lords, 2005).

Despite being unlawful, there is debate over whether doctors are willing to assist patients to die, but there is limited evidence to either support or refute this claim. A confidential survey of 300 general practitioners carried out by the Sunday Times newspaper on 15th November 1998 alleged that possibly thousands of patients die every year with the help of doctors and that 18% of doctors who replied to the questionnaire believed that they should prescribe lethal medication to assist suicide. Views were sought on withdrawing treatment and the administration of medication likely to shorten life, but views on administering lethal injections were not (Norton, 1998). As in this and other surveys, there are inherent problems with the way in which euthanasia was defined and this threatened the reliability of the results (this point is discussed further in section 1.5). A recent and more scientifically reliable national questionnaire survey of 857 medical practitioners in the UK revealed that of the 584,791 deaths in the UK in 2004, 0.16% (936) were by voluntary euthanasia. The survey also showed that only 2.6% of participants agreed that changing the law would benefit patients (Seale, 2006).

1.4 Nurses' attitudes to euthanasia

Fewer studies have examined the attitudes of nurses, and it may be argued that the practice of nursing with its emphasis on caring is incompatible with the practice of euthanasia. However, there is evidence from recent history that the nursing role has involved killing. Nurses were active participants in the organised killings of German citizens in the Nazi euthanasia programmes and intentionally killed more than 10,000 people. While there is a clear difference between the Nazi euthanasia programmes and a contemporary understanding of euthanasia, the nurses' explanations for participation are of interest. During the trial of fourteen nurses in Munich in 1965, some reported

that they had struggled with a guilty conscience, while others did not see anything wrong with their actions and believed they were ending the patient's suffering (Benedict & Kuhla, 1999). This indicates that nurses have been willing to perform euthanasia on the grounds of alleviating suffering.

In the literature examining more modern practices, there does appear to be some evidence that nurses have participated in, or are willing to participate in acts of euthanasia. A survey of 1218 registered nurses in the Australian Capital Territory, reported that 70% of respondents would be willing to be involved in the provision of active euthanasia for an incurably ill patient if it were legal, and at the patient's request (Kitchener, 1998). An earlier Australian survey of 1942 nurses indicated that 65% of respondents would be willing to collaborate with doctors in the provision of active voluntary euthanasia if it were legal. A further 5% stated that they had complied with a patient's request to directly end their life without having been asked by a doctor to do so (Kuhse & Singer, 1993). A study of the role of US critical care nurses in acts of euthanasia indicated that 16% of respondents had engaged in the practice of euthanasia and moreover, an additional 4% reported that they had hastened a person's death by only pretending to provide life sustaining treatment ordered by a physician (Asch, 1996).

Of these studies, those carried out by Asch (1996) and Kuhse and Singer (1993) have been criticised by nurses for their portrayal of nurses as participants in acts of euthanasia. As well as criticism of the research methods and instruments, concern has been expressed regarding the media attention both studies have received, and the potentially damaging impact of this on the public image of nursing (Aranda &

O'Conner, 1995; Dracup & Bryan-Brown, 1996; Mawdsley, 1997; McInerney & Seibold, 1995; Scanlon, 1996).

Even prior to legalisation on 10th April 2001, doctors in the Netherlands were unlikely to be prosecuted if they followed the Dutch Medical Association Guidelines on administering euthanasia. Protection from prosecution did however, only apply to doctors, a position made clear by the Dutch High Court in 1995, when it found a nurse guilty of assisting with euthanasia (Spanjer, 1995). The role of Dutch nurses in active euthanasia and physician assisted suicide has been investigated by collecting data from interviews and postal questionnaires from clinical specialists, general practitioners and nursing home physicians (Muller, Pijnenborg, Onwuteaka-Philipsen, van der Wal, & van Eijk, 1997). Although the majority of respondents in this survey thought that nurses should never be allowed to administer euthanasia, 21% of the sample of clinical specialists indicated that nurses administered the lethal drugs. In a discussion of what is described as a remarkable finding given the High Court judgement, Muller at al. state that in most cases the nurses administered morphine. They speculated that because the administration of morphine is one of the daily activities of nurses, then the clinical specialists may find it acceptable for nurses to administer this drug even if it results in the death of the patient; a conjecture based upon the principle of double effect.

Euthanasia was legalised in Belgium in 2002, but the legislation is similar to that in the Netherlands and only permits doctors to carry out acts of euthanasia (Gastmans, Lemiengre, & de Casterle, 2006b). The administration of lethal drugs to patients by nurses is therefore, not permitted under Belgian law. A review of 1925 Belgian

physicians who had signed death certificates for patients in 1998 raised several questions about nurse involvement (Bilsen, Vander Stichele, Mortier, & Deliens, 2004). The results indicated that nurses administered lethal drugs in 58.8% of euthanasia cases in institutions and in 17.2% of deaths that occurred at home. While these results are striking, and as acknowledged by the authors, not easily explained, in almost all cases the administered drugs were opiates. The administration of drugs, including opiates is commonly delegated to nurses in institutional settings and therefore, in accordance with the doctrine of double effect, may have been administered with the intention of relieving pain rather than killing the patient. Hence what may be reported in this study are instances of passive rather than active euthanasia.

There is only one published study examining the attitudes of UK nurses to euthanasia in which nurses responded to an invitation to complete a questionnaire published in the popular nursing journal, Nursing Times. The majority of respondents agreed that requests for euthanasia should be granted, with 14% responding that requests should always be granted, and 54% stating that sometimes they should be (Pyne & Booth, 1995). However, this survey was descriptive and only 149 nurses from the journals extensive readership responded. In 2003, the Nursing Times claimed that two thirds of 2,709 nurses they had surveyed believed that euthanasia should be legalised and that 31% of respondents thought that nurses should be allowed to assist in the suicide of patients. However, the questions used in the survey are not detailed in the article and apart from a brief description, the complete findings are unpublished (Hemmings, 2003).

The Royal College of Nursing (RCN) in its submission of evidence to the House of Lords on the Assisted Dying Bill stated its position to be firmly against euthanasia. The RCN considered the practice of euthanasia to be contrary to the public interest, nursing and medical ethics and patients' civil rights (House of Lords, 2004). However, while this remains the official position of the RCN, contrary views have been publicly expressed at debates during the RCN Congress meetings and by the chair of the RCN Ethics Forum (Boseley, 2003), indicating that similarly to the BMA, an official statement from a representative body does not necessarily mean that all nurses agree with it.

1.5 Problems with definitions of euthanasia in the published research

The problems associated with defining active and passive euthanasia both in meaning and use as well as dispute regarding the very existence of the distinction affects the conclusions that can be drawn from research in this area. While deliberately administering a lethal substance (active euthanasia) to a patient is unlawful, withdrawing or withholding treatment (passive euthanasia) in some circumstances is both lawful and considered by health professionals to be good practice. End of life care is further complicated by other terms such as terminal sedation where a patient is sedated and nutrition and hydration withdrawn (Rietjens et al., 2006).

British law has never sanctioned active euthanasia even administered on grounds of mercy as in the Dr Cox case discussed above. But the courts have recognised in some circumstances it may be legitimate to withhold treatment or administer large doses of opiates even if the incidental effect hastens the person's death (McHale, Fox, & Murphy, 1997). This is known as the doctrine or principle of double effect which can

be summarised as being *"always wrong intentionally to do a bad act for the sake of good consequences that will ensue, but that it may be permissible to do a good act in the knowledge that bad consequences will ensue"* (Glover, 1977, p. 87). The importance of the distinction between active and passive euthanasia is clearly demonstrated in English legal cases where the defence has relied upon the doctrine of double effect. In an early case, Dr Adams a general practitioner was acquitted from a murder charge following administration of large doses of opiates to an elderly, incurably (rather than terminally), ill patient. In his summation to the jury, Judge Devlin stated that *"a doctor is entitled to do all that is proper and necessary to relieve pain and suffering, even if the measures he takes may incidentally shorten human life"* (Pattinson, 2006, p.487). More recently, this principle was reaffirmed when permission was sought from the courts to discontinue artificially feeding Tony Bland, a young man in a permanent vegetative state as a result of injuries sustained during the Hillsborough football disaster (Airedale NHS Trust v Bland, 1993).

The legal, philosophical and healthcare literature includes debate on the problems of definitions. Begley in a philosophical examination of acts, omissions, intentions and motives in a nursing context argues that use of the principle of double effect "*encourages hypocrisy rather than honesty"* (Begley, 1998, p.865), and philosophers such as Rachels (1997), Singer (1993), and Harris (1985) have argued that there is no moral difference between active euthanasia and passive euthanasia. However, even amongst bioethicists there appears to be confusion regarding use of the terms. A survey of members of the American Association of Bioethics examining semantic and moral debates about hastening death found significant variability in the way the terms active euthanasia, passive euthanasia and assisted suicide were used (Ubel & Asch,

1997). In a study of the attitudes toward active euthanasia of 150 nurses in seven countries, a marked difference in the responses of the Israeli nurses is noted (Davis et al., 1993). The Israeli sample accounted for 50% of the total number of nurses who justified active euthanasia, but based on interview data, this result was explained by the respondents' confusion between active and passive euthanasia. In a replication of the studies carried out by Kuhse and Singer (1993), Aranda and O'Conner (1995) asked respondents to provide additional descriptive information about their experiences with euthanasia. Some clinical examples given by respondents for active euthanasia were actually examples of passive euthanasia as defined in the study.

Asch (1996) indicates a weakness in his study was the failure to distinguish between euthanasia and assisted suicide in the questionnaire. The range of activities in this study which were labelled as euthanasia may, according to Asch reveal the inadequacy of the term euthanasia and professional and legal policies based upon it. Wilkes and White (1995) report that palliative care nurses find themselves in ethical dilemmas because of conflict between the intent of palliative care and the failure to alleviate suffering. Conflicts in palliative care nursing such as issues about the value of life and the right to die, continuing and withdrawing treatment and providing comfort while not actively inducing death arose in Wilkes and White's study partly because of the nurses' lack of a clear definition of euthanasia. Whether active or passive euthanasia is being carried out is also of important to the findings in the study of Belgian nurses (Bilsen et al., 2004). While it is claimed that a large number of nurses were involved in acts of euthanasia, the use of opiates may suggest the administration of drugs with the primary intention of relieving pain and thus, provides further evidence of confusion about how euthanasia is defined.

Rogers (1996) points out that the lack of specificity of terms represents a continuing source of difficulty for research in this area, and Ho (1998) addresses this issue directly in a study analysing the subcategorical distinctions of euthanasia. In this study, four models were developed to reflect the subcategorical distinctions of active vs passive and voluntary vs involuntary euthanasia. Exploratory factor analysis identified two factors which represented the voluntary-involuntary subcategorical distinction. This two-factor structure of euthanasia was then cross validated with a different sample and model comparisons indicated that the voluntary-involuntary euthanasia models offered the best fit to the data. The results of this study are surprising in that the decision to support or not support euthanasia was made by respondents primarily on the basis of whether or not consent had been given by the patient. Ho concludes, *"The present findings suggest that the active vs passive distinction may not be as important a determinant of attitudes towards euthanasia as the literature has suggested"* (Ho, 1998, p.730).

However, the respondents in the study were members of the general public and graduate psychology students, and it may be argued that the attitudes of people unlikely to be directly involved in acts of passive or active euthanasia may differ from those of healthcare professionals. The attitudes of healthcare professionals to euthanasia are measured in the context of professional practice, encompassing beliefs about participating in acts of euthanasia as part of the professional role. The attitudes of members of the general public and students are more likely to be addressed in the context of themselves their family or friends as potential patients. Although the issue of consent is important for healthcare professionals and patients, concerns about the distinction between active and passive euthanasia are more likely to be of importance

to those involved in decision making and participating in controversial actions directed at others. The attitudes of nurses have also been noted as being particularly useful in deciding how relevant such distinctions are for two reasons. Firstly, because they have the greatest amount of contact with dying people, and secondly, because the influence on caring in nursing ethics may cause nurses to question what may be seen as essentially medical decisions about withdrawing and withholding treatment (Dickenson, 2000).

1.6 Significant variables in research into attitudes to euthanasia

1.6.1 Age, gender and religion

Some variables are reported as being influential in determining attitudes to euthanasia. Kuhse and Singer (1993), Brown, Thompson, Bulger, and Laws (1971), and Kitchener (1998) report that age was a significant factor influencing decisions about euthanasia with nurses under 40 being more likely to be in favour of active voluntary euthanasia than older nurses. Nursing is a female dominated profession and this is reflected in the gender balance participants in the studies. Only the study by Kitchener (1998) examined the relationship between gender and attitudes to euthanasia which was non-significant.

As found consistently with surveys of public and medical practitioners, those without religious beliefs are more in favour of euthanasia (Davis et al., 1995; Kitchener, 1998; Richardson, 1994; Shuman, Fournet, Zelhart, Roland, & Estes, 1992). A systematic review of 15 published studies revealed that in studies that examined the relationship between the nurses' religious beliefs and their attitude to euthanasia the stronger a nurse's religious belief the more they opposed euthanasia (Verpoort, Gastmans, De

Bal, & de Casterle, 2004). This finding is unsurprising as all major religions have strict moral rules about intentional killing.

1.6.2 Nationality

The enactment of legislation, cultural values and professional practice vary from country to country, and these differences may affect attitudes to euthanasia held by nurses of different nationalities. The fact that euthanasia remains unlawful in all jurisdictions except the Netherlands and Belgium influences responses in many studies, either in terms of being cited as a reason for not agreeing with active euthanasia, or in terms of responding favourably to suggestions that the law be changed to allow the practice. The evidence to have emerged from the Netherlands in particular is used by both those who agree with euthanasia and by those who reject it, to support their arguments (Asch, 1996; Kitchener, 1998; Kuhse & Singer, 1993).

The studies by Kitchener (1998) and Kuhse and Singer (1993) describe the view of Australian nurses where the world's first voluntary euthanasia law was passed by the parliament of the Northern Territory in 1995. This allowed physicians to administer lethal substances to terminally ill patients who had made a made a formal request to end their lives. Nine months later, the Australian Senate overturned the Act during which time seven euthanasia deaths were reported (Kissane, Street, & Nitscheke, 1998). The presence of this legislation even though enacted for a short time may affect the attitudes of Australian nurses more than those working in countries where euthanasia has never been lawful.

Studies have also compared the attitudes of Australian and Japanese nurses (Tanida et al., 2002), French nurses with the general public and other health professionals (Teisseyre, Mullet, & Sorum, 2005), members of the Swiss Association for Palliative Care (Bittel, Neuenschwander, & Stiefel, 2001) and nurses in Finland (Kuuppelomäki, 2000). However, apart from the two polls carried out by the Nursing Times described above, there are no published studies specifically exploring the attitudes of British nurses to euthanasia. The findings of these two polls should be treated with caution in terms of how representative of the attitudes of British nurses they are as there are limitations in the design and response rate for the first, and no detail of the method is reported for the second study.

1.6.3 Nursing speciality

Differences in attitudes to euthanasia between nurses working in different clinical areas are not clearly demonstrated in the literature. While studies report some evidence of nurses willingness to participate in acts of euthanasia, the respondents in these studies are either from one clinical speciality such critical care nurses (Asch, 1996), oncology nurses (Anderson & Caddell, 1993; Kuuppelomäki, 2000; Matzo & Schwarz, 2001; Pierce, 1999; Richardson, 1994), or palliative care nurses (Verpoort, Gastmans, & de Casterle, 2004; Wilkes, White, & Tolley, 1993). Other studies make comparisons between two clinical specialities such as oncology nurses and dementia care nurses (Davis et al., 1995), or palliative care and oncology nurses (Aranda & O'Conner, 1995). Other studies report clinical specialism within the biographical details of respondents, but do not report this variable in the data analysis. From the limited evidence in the literature it appears that nurses who frequently care for dying patients (such as those in palliative care), do tend to be less supportive of euthanasia.

Palliative care organisations are generally opposed to active voluntary euthanasia (Farsides 1998), and Verpoort et al. (2004) suggest that the speciality may therefore attract and retain nurses whose personal views on euthanasia match those of the organisation.

Only one survey systematically examines the relevance of clinical experience within the study. A study of nurses from six clinical specialities in the Australian Capital Territory included a sample of 142 nurses from critical care, 130 from aged care, and 27 from palliative care nurses (Kitchener, 1998). Participants were asked about their willingness to assist with active voluntary euthanasia for an incurably ill patient if it were legal and at the patient's request. Responses indicated that 78.9% of critical care nurses, 56.2% of aged care nurses and 33.3% of palliative care nurses expressed willingness to participate in active euthanasia. Multivariate analysis of predictors of willingness, showed significant associations with area of speciality and Kitchener (1998) concluded that nurses working in critical care or mental health are more willing to be involved in the provision of active euthanasia than those who work in aged or palliative care. These findings appear to concur with those in studies of nurses from single specialities, but the study reports the views of Australian nurses soon after active euthanasia was briefly permitted and the experience of this may have influenced the responses.

1.7 Research design of studies examining nurses' attitudes to euthanasia

The published studies exploring nurses' attitudes to euthanasia use both qualitative and quantitative data collection methods. The use of qualitative methodologies with their emphasis on providing a holistic, natural world view of phenomena is popular in

nursing research, and some studies, for example those carried out by Kuuppelomäki (2000), Pierce (1999), van de Scheur and van der Arend (1998), McInerney and Seibold (1995) and Wilkes, White & Tolley (1993), examined nurses' attitudes collecting data using semi-structured or unstructured interviews. Kuuppelomäki (2000) justifies the use of a qualitative methodology because it allows the participants to give reasons for their opinions in their own words and the results will therefore, yield a comprehensible and credible view of the world. McInerney and Seibold (1995) argue that the use of surveys fails to capture the complexity of the issue of euthanasia and describe such research as presenting a simplistic view of beliefs and attitudes. The authors make the rather ambitious claim that their study, based upon data obtained from interviewing ten nurses, clearly demonstrates the inadequacy of quantitative survey methods in providing an accurate picture of nurses' beliefs about euthanasia. The purpose of qualitative research is to describe and explain the world and what it means to the people involved. While there is no need for such research to test theory or produce findings that can be generalised, the research's reliability is weakened and the findings are therefore, left open to doubt.

The majority of quantitative studies measure attitudes towards euthanasia using questionnaires, for example Kitchener (1998), Pyne & Booth, (1995), Winget, Kapp, & Yeaworth, (1977), and Young and Ogden (1998). In all but three of the studies, (Aranda & O'Conner, 1995; Richardson, 1994; Shuman et al., 1992), the authors devised their own questionnaire. In none of the papers reviewed where a questionnaire had been specifically designed for the study was a rationale offered for the format of the questions, or a theoretical framework for the research identified. The study carried out by Aranda and O'Conner (1995) replicates the previous research

carried out by Kuhse and Singer (1993) and Richardson (1994) used the questionnaire developed by Takeo, Satoh, Minamisawa, and Mitoh, (1991). While two previously validated scales designed to measure attitudes to euthanasia could be found in the literature (Adams, Bueche, & Schvaneveldt, 1978; Tordella & Neutens, 1979), only one study of health professionals' attitudes was found that included either scale in the measures (Shuman et al., 1992). This measure, the Euthanasia Ideology Scale, provides a total behavioural score measure from four items measured on a five point Likert scale (Adams et al., 1978).

Data obtained from questionnaires may also be influenced by the way the questions are phrased and the importance of this is illustrated in a study consisting of two surveys exploring this possibility (Hagelin, Nilstun, Hau, & Carlsson, 2004). In the first survey, a questionnaire completed by 684 Swedish undergraduates contained 37 questions, one of which asked participants if they were 'positive' negative' or 'don't know' towards euthanasia. An explanation of euthanasia was not given. In the second study, 639 students completed a different questionnaire consisting of four items, one of which defined euthanasia, described the criteria for carrying out euthanasia in the Netherlands and asked participants to select which of five options they favoured for legislation. The responses were compared and while a large proportion (43%) of participants answered 'don't know' in the first survey, in the second 90% of respondents selected one of the five options for legislation. While acknowledging that including a 'don't know' option is a contentious issue, Haglin et al consider the 10% who did not answer the question in survey two to be analogous to those who responded 'don't know' in the first. They concluded that those who could not express an opinion in the first survey may have been able to in the second when given a

selection of options. While both questions asked about euthanasia, one did not provide a definition and both offered quite different options. However, it would be plausible to report the findings of both surveys with participants expressing positive and negative attitudes to euthanasia. This illustrates the difficulties of interpreting results from different questionnaires and confirms that the survey instrument used might affect the outcome of questionnaires.

A further design issue concerns the potential pressure of social correctness in that participants may feel inhibited answering questions on controversial issues and will seek to give acceptable answers. This is a particular issue for qualitative data collection methods when the researcher is speaking directly to participants in focus groups or individual interviews. More remote data collection methods such as questionnaires may reduce this effect particularly the use of scenarios reflecting real life situations (Ryynanen, Myllykangas, Viren, & Heino, 2002). To assure participants of confidentiality, questionnaires can also be completed anonymously, however, non-respondents cannot be followed up which may result in low response rates.

In a review of methodological issues in euthanasia research, Rosenfeld (2000) discusses how research in this area is "*plagued by methodological shortcomings and limitations*" (p.559), and how the development of specialised instruments may facilitate this research. However, the lack of use of reliable measures to examine nurses' attitudes to euthanasia is marked in the published research and the methodological and design differences limits the comparisons than can be made across the studies.

1.8 Measuring attitudes

Quantitative studies and surveys claim to measure attitudes. The problems associated with using attitude measures to predict behaviour have been discussed in the psychological literature since the 1930s (LaPierre, 1934; Wicker, 1969), but Ajzen and Fishbein (1977) argue that if appropriate attitude measurement techniques are used, then attitudes can be accurately used to predict behaviour. In their paper, Ajzen and Fishbein (1977) developed two principles important in reliable attitude measurement, the principle of aggregation and the principle of compatibility. According to the principle of aggregation, attitudes can show substantial correlations with behaviour if the behavioural measure is aggregated across a number of specific behaviours. Single measures of behaviours are unreliable indicators of attitude, but an appropriate aggregation of responses to attitude relevant questions will create a reliable measure of attitudes (Eagly & Chaiken, 1993). Strong attitude-behaviour correlations therefore, are found when both attitudes and behaviour are measured using multiple items. For example, to ask nurses what they thought about active euthanasia by using a single item would not be an accurate predictor of behaviour, but constructing a questionnaire using multiple item measures of attitudes and behaviours will yield more accurate results.

Different elements of behaviour such as the action performed, the object to which the action is directed, the context in which the action takes place, and the time at which it takes place can vary. Therefore, an accurate explanation of behaviour specifies not only what action is performed, but the target, action, context and time of the behaviour (Manstead, 1996). Using this principle of compatibility, a questionnaire constructed to examine nurses attitudes to euthanasia should address not only the

action, (the act of euthanasia), but also the object, (the patient for whom, euthanasia is being considered), the context, (the clinical area where the act of euthanasia will take place), and the time when the action will take place. Therefore, according to the principle of compatibility, stronger correlations between measures of attitude and behaviour are more likely to occur if they are compatible in action, object, context and time. However, as discussed above, in the studies examining nurses' attitudes to euthanasia there are few examples of studies using validated measures or replicating previous studies using the same measures.

1.9 Summary

The attitudes of nurses to euthanasia are underrepresented in the literature in comparison to those of doctors. Of the research that has been published, there are few examples of studies using reliable, valid attitude measures or evidence of research testing attitude theory. While some variables such as age and religiosity appear to influence nurses' attitudes, only one study (Kitchener, 1998) explored the significance of nursing speciality using multivariate analysis. This study reports the views of Australian nurses, which may have been influenced by the debate over the brief legalisation of euthanasia in one Australian State, an issue less likely to influence those attitudes of British nurses. With the exception of two polls carried out by the Nursing Times, the attitudes of British nurses to date have not been explored. Several published studies examine the attitudes of nurses in European countries as well as those from the US and Japan. However, in addition to the influence of differing legal positions on euthanasia, important contextual social differences such as views on life and death, the influence of religion and the status of nursing impinge on direct comparison with British nurses.

The published research shows limitations in the design and data collection methods for both quantitative and qualitative studies. While there is a need for reliable quantitative research to measure behaviour, important nuances may be missed when remote data collection methods (such as questionnaires) are the sole measures used. The strength of qualitative methods is their focus on understanding behaviour in exploring nurses' attitudes to euthanasia and it is clearly important not only to explain, but also to understand the attitudes nurses hold. As the largest group of care givers in the UK, the attitudes nurses hold towards euthanasia, their views on proposed changes to the law and whether they would participate or administer euthanasia will impact upon clinical practice and ultimately patient care. Therefore, there is clearly a need to systematically examine the attitudes of British nurses.

1.10 Objectives of the thesis

Taking account of the strengths and limitations of the published research discussed above, three overall objectives were established for this thesis:

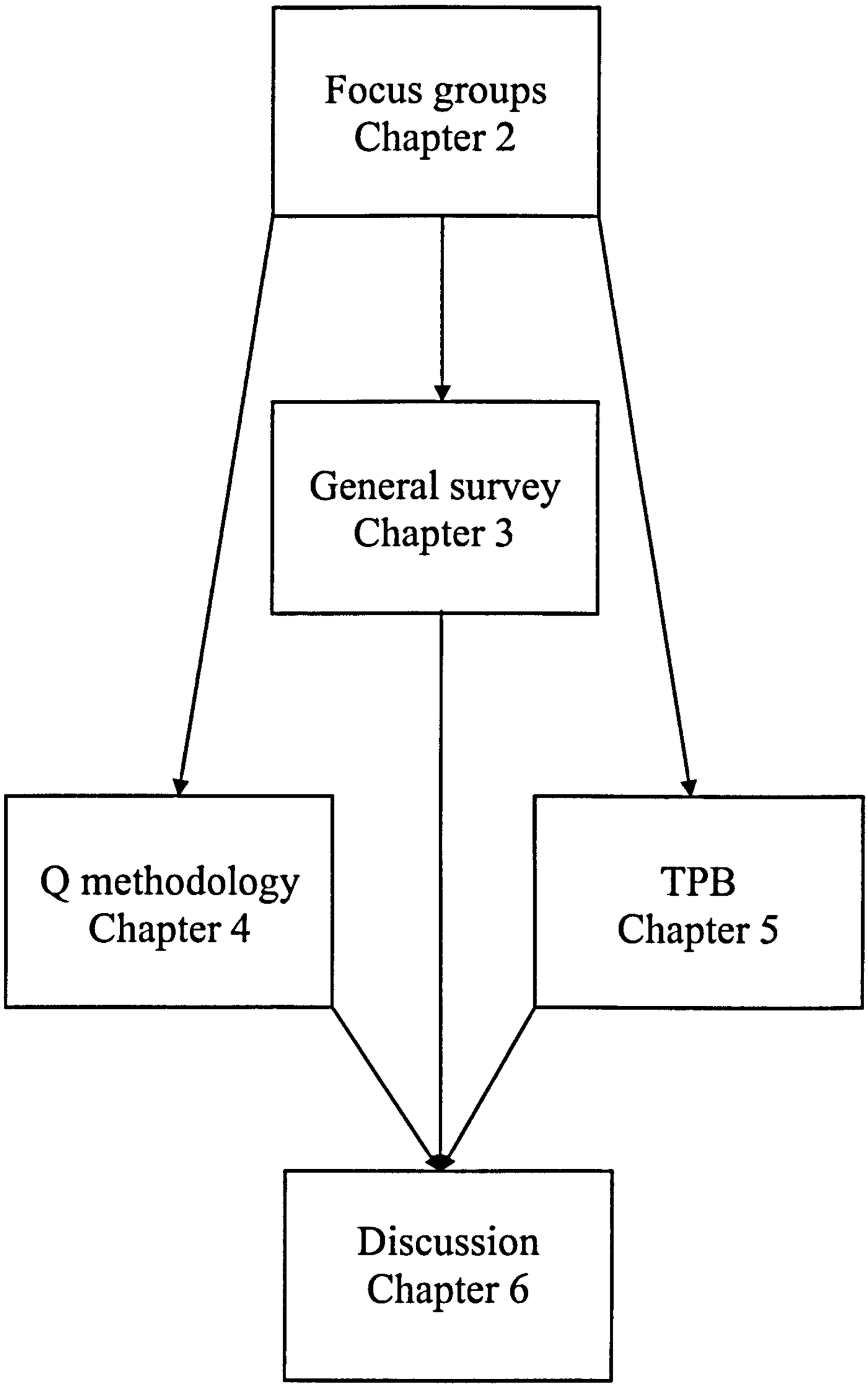
1. to develop an understanding of the attitudes of nurses working in the UK to active voluntary euthanasia
2. to investigate similarities and differences in attitudes to euthanasia of nurses working in differing clinical areas
3. to evaluate the impact of research design and data collection methods on attitudes towards euthanasia

To achieve these objectives, four different methods of research design and data collection were used to examine the attitudes of British nurses to voluntary active euthanasia.

1.11 Subsequent chapters

Chapters 2, 3, 4 and 5 describe and discuss four empirical studies. In study 1, data were collected from focus groups and subsequently used in the development of stimulus materials for Studies 2, 3 and 4. Thus, while the findings from each study can be considered separately, as shown in Figure 1.1, a strength of this thesis is the clear links between them.

Figure 1.1 Flow diagram of studies



1.11.1 Chapter 2

Using focus groups, this preliminary study identified the concepts registered nurses working in an intensive care unit, hospice and nursing home considered to be important in the euthanasia debate. Emerging categories and sub-categories were identified from content analysis of the data collected, and the findings used to generate measures for subsequent studies.

1.11.2 Chapter 3

Using an Internet based survey, this second study explored the factors underlying nurses' attitudes to euthanasia. A questionnaire was developed using data collected from the focus groups carried in Study 1, a modified version of the Euthanasia Ideology Scale (Adams et al., 1978), and the Moral Judgment Test (Lind, 1999). Descriptive information was obtained from data analysis, and the EIS and MJT scores calculated. Correlations between dependent variables were also examined and the data subjected to factor analysis.

1.11.3 Chapter 4

Using Q methodology, this second study explored diversity in nurse's subjective understanding of voluntary active euthanasia and investigated similarities and differences in these understandings in nurses with different clinical experiences. A Q set was developed and Q sorts carried out with nurses in working in intensive care units, hospices and nursing homes. By-person correlation and factor analysis using Principal Components Analysis and Varimax Rotation were performed to determine different understandings of nurses' beliefs about euthanasia.

1.11.4 Chapter 5

Using the theory of planned behaviour (TPB), this study examined the attitudes of registered nurses working in intensive care units, hospices or nursing homes to active euthanasia. A questionnaire was formulated consisting of three fictitious scenarios each followed by 43 items measuring the components of the TPB, measures of consistency, a modified version of the Euthanasia Ideology Scale (Adams et al., 1978), and biographical information. Data was analysed using a 3 x 3 mixed ANOVA, correlations among the TPB components were calculated, and stepwise multiple regressions of behavioural intentions on to the TPB components were computed for nurses from each clinical area and each patient.

1.11.5 Chapter 6

This final chapter discusses the main finding from chapters 2, 3, 4 and 5. The implications of the findings are discussed and recommendations made for further studies. The thesis concludes with consideration of the findings for nursing practice and policy.

Chapter 2: Nurses' attitudes to euthanasia: A focus group study

2.0 Introduction

As discussed in Chapter 1, there have been a number of surveys of the attitudes of Australian nurses (Kitchener, 1998; Kuhse & Singer, 1993), Japanese nurses (Tanida et al., 2002; Wilkes et al., 1993), US nurses (Asch, 1996; M. G. Young & Ogden, 2000) and European nurses (Bilsen et al., 2004; van de Scheur & van der Arend, 1998; Verpoort, Gastmans, & de Casterle, 2004) to euthanasia, but the views of UK nurses are under represented in the literature. While the international studies give a general insight into the attitudes of nurses towards this controversial subject, there are important differences in cultural values along with differences in the status and practice of nursing in the countries where the studies were located (Verpoort, Gastmans, De Bal et al., 2004). Furthermore, euthanasia is permitted in law in Belgium and the Netherlands, and Australia's Northern Territory enacted legislation allowing euthanasia for a limited period of time. While euthanasia is not lawful in any US state, the State of Oregon does permit physician assisted suicide (PAS), which means that doctors can lawfully prescribe lethal medication for terminally ill patients to self-administer. Thus, nurses working in countries where euthanasia or PAS is (or has been) lawful will have different experiences of caring for dying patients than their UK counterparts and the findings of these international studies cannot be considered to be representative of the view of UK nurses towards euthanasia.

The primary objective of this thesis is to develop an understanding of the attitudes of nursing working in the UK to active voluntary euthanasia, and to begin the investigation, Study 1 used focus groups to identify the concepts registered nurses

considered to be important in the euthanasia debate. Focus groups were selected as the method of investigation as group discussion has been shown to be useful to formulate research questions for subsequent research (Rea & Parker, 2005). Focus groups were conducted with nurses working either in an intensive care unit (ICU), a hospice or a nursing home (3 in total). These clinical areas were selected, as the nurses would have experience in caring for dying patients and their families, albeit in quite different circumstances. Patients admitted to an intensive care unit are by definition critically ill, and the nature of their conditions and treatment regimes will be entirely different to a patient being cared for at the end of their life in a hospice or nursing home. Emerging categories and sub-categories were identified from content analysis of the data collected, and the findings used to generate measures for subsequent studies.

2.1 Principles of focus group research

Focus groups developed out of research methods used to gauge audience responses to propaganda and radio broadcasts during World War II (Kidd & Parshall, 2000) and are a popular method of generating data particularly in preliminary and qualitative research studies. Focus groups are a type of group interview where group interaction is explicitly used as part of the data collection method. Therefore, instead of being interviewed individually, participants are encouraged to talk to one another, exchange anecdotes, experiences and points of view (Kitzinger, 1995).

The main advantage of focus group interviews over individual interviews is the way that interaction between the participants is used to generate data. While commonly used as a data collection method in qualitative research, Calder (1977) describes focus groups as having several different forms along a qualitative-quantitative continuum,

one of which is their use in identifying constructs prior to quantitative studies. Therefore, as well as being used to generate qualitative data exploring participants' knowledge and experience of a given subject, they can also be used to obtain background information about a subject to formulate research questions for subsequent research (Rea & Parker, 2005). As noted by Krueger and Casey (2000), focus groups can provide researchers with valuable insights into conducting complicated quantitative investigations. Preliminary information about issues of importance can be gathered from interested parties or key individuals in group settings where *"issues and problems of relevance to the study can be debated, discussed, and refined openly and constructively."* (Rea & Parker, 2005, p.73). Focus groups therefore, are useful way of gathering information to be used in the development of questionnaires.

2.2 Strengths and weaknesses of focus groups

As groups of people are interviewed together, focus groups are an economical means of data generation, and as well as providing information about the subject under investigation, the process of participant interaction can add a further dimension to the data collected (Sim, 1998). Furthermore, interviews are considered to be a particularly appropriate method to obtain complex, controversial or personal information such as attitudes to euthanasia (Smith, 1995). Conversely, group dynamics can inhibit discussion of controversial subjects, but as Kitzinger (1995) states, this should not be assumed. Group discussions can actively facilitate discussion of sensitive subjects as less inhibited participants can break the ice for those more reticent in contributing and the group structure can provide mutual support in expressing feelings common to the group. The main advantage of using focus groups

over individual interviews is that the interaction amongst participants is a means of accessing data that might not otherwise emerge. This gives the method a high level of face validity as what is said can be confirmed during the group discussion (Webb & Kevern, 2001).

2.3 Nurses' attitudes to euthanasia: a focus group study

2.3.1 Objectives

Study 1 had two objectives:

- to identify the concepts registered nurses consider to be important in the euthanasia debate
- to generate preliminary data to formulate questions and stimulus material for future studies.

2.3.2 Ethical considerations

The study was carried out within the guidelines of the NHS Research Governance Framework, and ethical approval was sought and obtained from Leeds Eastern Research Ethics Committee.

2.3.3 Participants

Three focus groups were conducted with registered nurses in either an ICU, a hospice or a nursing home. The clinical areas were purposively selected, as nurses working in these areas would be familiar with caring for dying patients and their families. Furthermore, the use of more than one focus group is recommended to increase the reliability of the data (Sim, 1998). The different forms of communication that people use in day-to-day interaction can be helpful in discerning cultural and group norms,

shared and common knowledge. Focus groups facilitate this, and are therefore useful in identifying work place cultures (Kitzinger, 1995). As one of the overall aims of this thesis was to examine differences and similarities in nurses' attitudes to euthanasia in nurses working in differing clinical areas, this aspect of focus groups makes them a particularly appropriate strategy in the preliminary stages of the research.

The senior nurse in each of the selected clinical areas was contacted by telephone, informed about the project and permission was sought from the senior nurses to conduct the interviews. A suitable time was then negotiated for the focus groups to take place, and the senior nurse informed the registered nurses in each clinical area about the project and asked for volunteers to participate in the interviews.

There are discrepancies in the literature regarding the optimum size of a focus group, and the recommended number of participants varies from four to 20 (McLafferty, 2004). In order to understand the experience of participants, particularly amongst those likely to be knowledgeable about the subject, smaller groups are considered to be preferable (Krueger & Casey, 2000). Therefore, in this study, smaller groups were used with six nurses from the ICU, five from the hospice, and a further five from a nursing home were recruited. Focus groups are considered to be more effective when participants share key characteristics and participants in homogenous groups have been found to generate high quality data (Rea and Parker, 2005). In this study, three homogenous groups consisting of all female participants aged between 24 and 55 years of age participated. The groups were also naturally occurring as the nurses in each group were from one clinical area and therefore, were known to each other as work colleagues.

2.3.4 Focus group question schedule

The questions for the focus group were developed through reading the published literature on nurses' attitudes to euthanasia. As the data obtained from the focus group interviews would also be used for a future Theory of Planned Behaviour (TPB) study (Study 4), the interview schedule included appropriate questions required to develop a TPB questionnaire. The questions therefore, targeted predetermined categories that would be used as initial coding categories in the data analysis. The following eight questions formed the schedule:

1. *What are the advantages of administering euthanasia to a patient*?
2. *What are the disadvantages of administering euthanasia to a patient*?
3. *What factors might help a nurse administering euthanasia to a patient*?
4. *What factors might prevent a nurse administering euthanasia to a patient*?
5. *How might a nurse feel who administered euthanasia to a patient*?
6. *How might a nurse feel who did not administer euthanasia to a patient*?
7. *Are there any groups or individuals who may influence a nurse's decision to administer euthanasia*?
8. *Are there any groups of patients or individuals who come to mind when thinking about administering euthanasia*?

2.3.5 Procedure

Each focus group was conducted by the researcher in the participants' work place. At the beginning of each focus group, the researcher introduced herself, thanked the nurses for participating and explained the purpose of the study. The participants were informed that the focus of the interviews was active voluntary euthanasia only and

that issues of passive euthanasia, terminal sedation and withholding and withdrawal of treatment were outside the scope of this study. Each group was then asked the series of eight open-ended questions to elicit their beliefs about active euthanasia. Each discussion lasted approximately one hour.

2.3.6 Recording the data

Focus groups can be recorded using video and/ or audio recorders, and/or written notes taken either by the moderator or by an observer. While recording data is useful for gathering accurately verbal and non-verbal information, both methods are problematic when researching sensitive subjects such as attitudes to euthanasia. Participants may be feel inhibited by recording devices and may sanitise their responses (Polgar & Thomas, 1995).

The difficulties moderators face in keeping accurate notes during focus groups are discussed by several authors (Kitzinger, 1994; Krueger & Casey, 2000; McLafferty, 2004). However, because of the possibility of electronic recording methods inhibiting free and honest discussion, they were not used in this study, and the responses the nurses made to each question were written down during the interviews by the researcher. As recommended by Kidd and Parshall (2000), the identified issues noted were presented to the participants for confirmation and clarification at the conclusion of the discussion for each question. Only when the notes were agreed as accurately representing the discussion was the next question presented to the participants.

2.3.7 Data analysis

Content analysis was used to interpret the data by systematically coding and identifying themes emerging from the focus group interviews. The level of analysis required is dependent upon the type of study and therefore, the level of analysis should be matched to the research questions (Krueger & Casey, 2001). Complex in depth studies may require transcript-based analysis, however, as the aim of this study was primarily to generate data to develop measures for further research, a directed content analysis method was used (Hsieh & Shannon, 2005). 2005). Content analysis using a directed approach is structured and through existing theory or prior research key concepts are identified as initial coding categories. The analysis therefore, focused on manifest content, that is analysis of the "*visible, obvious components*" of the text (Graneheim & Lundman, 2004, p106). The initial coding categories were linked to each question and labelled as a) advantages, b) disadvantages, c) helpful factors, d) preventative factors, e) feelings if euthanasia administered, f) feelings if euthanasia not administered, g) influences and h) patients. This initial coding of responses is shown in Appendix 2.1.

Following this initial coding, the data was examined for themes and similarities across the data from all three focus groups. Emerging themes were colour coded as sub-categories using highlighter pens. Sub-categories identified from the responses from two or three groups of nurses interviewed were included in the analysis, but responses identified by only one group were disregarded, for example *"it might stop communication between the nurse and patient" "it may be easier to help a close family member than a patient" "past experiences"*. As recommended by Schilling (2006), to improve the accuracy and reliability of the coding process, an independent

rater checked the coding of the data from two focus groups, and more than 90% of codes matched the original coding.

2.3.8 Results

Five sub-categories emerged as advantages to administering euthanasia and three of these were related to the patient. These were that euthanasia would enable the patient to control their death, that they would have a pain free death and that euthanasia would bring an end to their suffering. One sub-category, that euthanasia would be a cost effective use of resources was related to society in general. The final sub-category concerned the relatives and administering euthanasia was identified as causing less distress for the relatives. Four sub-categories were identified as disadvantages of administering euthanasia two of which related to the patient. These were, the nurse being unsure that euthanasia was really what the patient wanted and uncertainly about who may have influenced the patient in reaching the decision. Two further sub-categories related to the nurse were identified, that suspicion might fall upon nurses who administered euthanasia and the negative effect this may have on public confidence in nurses. Administering euthanasia was also identified as being a great responsibility for a nurse.

The question regarding helpful factors to administering euthanasia yielded seven sub-categories. Two of these addressed the need for guidelines and protocols and also that before administering euthanasia, the nurse would need to know it was a lawful act. Participants identified two further helpful factors as being the involvement of the multidisciplinary team and the patient's family in making the decision. The nurse would also need to be convinced that the decision was what the patient wanted, and

that support should be available for nurses who did administer euthanasia. A further issue identified in the discussion with the hospice and ICU nurses was the possibility of patients self-administering the drugs and therefore, assisted suicide was seen to be a helpful factor.

The factors that may prevent a nurse administering euthanasia were reduced into six sub-categories, three of which were directly related to the nurse. Spiritual and moral beliefs were identified as deterring factors as was the depth of the nurse's relationship with the patient. Acting outwith the law would also deter nurses administering euthanasia. Two further sub-categories concerned interpersonal relationships such as how a nurse administering euthanasia might be viewed by colleagues and others, and conflict in the multidisciplinary team caring for the patient regarding the decision was also acknowledged as a deterring factor.

In answer to the questions about how a nurse might feel if s/he did or did not administer euthanasia, the participants' responses were categorised into positive and negative feelings. There were similarities in the responses to both questions, for example, participants discussed that a nurse might feel regret or guilt if they administered euthanasia as they had directly caused the patient's death. Equally, the same emotions may be felt if a nurse did not administer euthanasia if it was what the patient wanted. Therefore, data that was categorised as positive if euthanasia was administered was categorised as negative if the nurse did not administer euthanasia and vice versa. A further sub-category to emerge regarding feelings if euthanasia was administered was that of responsibility as the enormity of the act was also raised in this section of the discussion.

Four sub-categories were identified from the data obtained from the question about who might influence a nurse's decision to administer euthanasia. These were; other professionals including members of the multidisciplinary team, the patient's family and carers and the nurse's family and friends. A further sub-category to emerge was the experience of others, as participants discussed how cases reported in the media and the experiences of those who had been directly involved in acts of euthanasia, both professionals and relatives of patients, could influence their decision to administer euthanasia. The sub-categories identified in the predetermined categories are summarised in Table 2.1.

Table 2.1 Categories and sub-categories obtained from content analysis of interview responses from all participants

	Question 1 Advantages	Question 2 Disadvantages	Question 3 Helpful factors	Question 4 Preventative factors	Question 5 Feelings if administered	Question 6 Feelings if not administered	Question 7 Influences
Sub-categories							
1	Control	Being unsure of the patient's wishes	Guidelines & protocols	Nurse's spiritual beliefs	Responsibility	Positive	Other professionals
2	A pain free death	Influence of others on decision	MTD involvement	Nurse's moral beliefs	Positive	Negative	Patient's family & carers
3	End of suffering	Suspicion & its affect on public confidence	Family involvement	Views of others	Negative		Nurse's family & friends
4	Less distress for relatives		Being convinced about the patient's decision	The law			Experiences of others
5	Cost effectiveness		Support for the nurse	Disagreement amongst MDT			
6			Self administration	Relationship with the patient			
7			That the act was lawful				

The final question in the focus groups asked the participants if there were any groups of patients or individuals who came to mind when thinking about administering a lethal dose of medication. Content analysis of this data revealed that the patients identified by the nurses fell into two main groups:

- those with named conditions such as multiple sclerosis and other degenerative diseases, end stage cardiac failure, cancer, stroke and spinal injuries
- descriptions of patients' symptoms, levels of dependency and quality of life such as those with no quality of life, uncontrollable pain or other symptoms and those who have lost their independence.

The patients identified during the interviews are summarised in Table 2.2.

Table 2.2: Patients who came to mind when the nurses thought about euthanasia.

Question 8 **Which patients**		
Responses from hospice nurses	**Responses from nursing home nurses**	**Responses from ICU nurses**
a) Patients with: • multiple sclerosis • end stage cardiac failure • Huntingdon's Disease	**a) Patients with:** • arthritis • Parkinson's Disease • multiple sclerosis • COPD • severe CVA	**a) Patients with:** • cancer • spinal injuries • degenerative diseases • CVA • dementia • PVS • children with severe or lethal congenital abnormalities
b) Patients: • facing a horrible end • experiencing a prolonged death • experiencing a distressing death • with no quality of life • with uncontrolled pain • with uncontrolled bleeding • with unrelieved breathlessness • who have lost their independence • who have no dignity • who experience choking	**b) Patients:** • with uncontrollable pain • with no quality of life • with uncontrollable symptoms associated with malignant disease	**b) Patients:** who are terminally ill • debilitated by their illness • completely dependent on their carers • chronically ventilated patients • those who want to die because they think their quality of life is poor

2.3.9 Discussion

To achieve the first objective of Study 1, content analysis of the data obtained in the focus groups identified issues that registered nurses consider important in the euthanasia debate. These were broadly categorised as advantages and disadvantages of nurses administering euthanasia, what nurses might consider to be helpful or preventative factors to administering euthanasia, the feelings nurses might have if either they did or did not administer euthanasia and how a nurse's decision might be influenced. Further analysis revealed between two and seven sub categories in each category.

The nurses in this study identified issues of patient autonomy (such as control over their death and ending suffering) as important advantages in the administration of euthanasia. While focus groups have not been used to examine nurse attitudes to euthanasia in any previous studies, this finding concurs with published studies using alterative research designs (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995). Some doubt was also expressed over the validity of a patient's decision and how a nurse could be sure that it was truly autonomous, and the potential for abuse is recognised in a number of studies (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995). In particular, the consideration of euthanasia as a cost effective use of resources and economically more efficient than palliative care is also noted in the published literature (Matzo & Schwarz, 2001; McInerney & Seibold, 1995; Young & Ogden, 2000).

Two further disadvantages of administering euthanasia were related to the practice of nursing. Firstly, this focus group study identified the potential negative impact administering euthanasia might have on the public image of nursing. There is a strong caring ethos in nursing and as discussed in Chapter 1, the practice of euthanasia has been viewed be viewed as contrary to this central concept of nursing (Davis et al., 1993; Kuuppelomäki, 2000; Richardson, 1994; Tanida et al., 2002). Secondly, as found in the published studies (Kuhse & Singer, 1993; Musgrave & Soudry, 2000; Verpoort, Gastmans, & de Casterle, 2004), administering euthanasia was identified as being a great responsibility for a nurse. Although allowing the patients to self-administer the drugs rather than a nurse administering them, and thus, assisting the patient to commit suicide was seen to be a helpful factor.

Assisted suicide is quite a different act to euthanasia in that the patient administers medication that has previously been prescribed and dispensed to them. Therefore, apart from issuing the prescription, the health professional does not play an active part in the person's death. As this issue was linked to the feelings of responsibility identified as a disadvantage of administering euthanasia, it is possible that a nurse may respect a patient's autonomous decision to ask for euthanasia, but not want to participate in the act as being the one to administer the drugs. Administering the drugs with the intent of ending the life of the patient could change the nature of the nurse-patient relationship (Verpoort, Gastmans, De Bal et al., 2004), but a patient self-administering the drugs, would exonerate the nurse of the responsibility of directly causing the patient's death.

The need to have guidelines, protocols and agreement amongst the multidisciplinary team and the patient's relatives were found in this study to be important helpful factors, and disagreement amongst these groups or a nurse's moral or spiritual beliefs identified as preventative factors. These findings largely correspond to the findings from the international literature where the need for guidance for health professionals is recognised in countries where euthanasia is currently lawful. Policies, guidelines and protocols are evident in institutions that administer euthanasia and the majority explicitly address the role of nurses (Gastmans et al., 2006b). The importance of consensus in decision making was also found to be important in Belgium where euthanasia is lawful (Verpoort, Gastmans, & de Casterle, 2004).

Similar feelings if nurses either did or did not administer euthanasia were identified. During the focus groups, the nurses discussed how a nurse may feel guilty if s/he administered euthanasia at a patient's request and acknowledged that while the nurse would have acted in accordance with the patient's wishes, some regret could be felt about directly causing the death. However, despite the feelings of guilt, the nurse might at the same time feel relieved that the person's suffering was at an end. Conversely, a nurse who did not administer euthanasia might feel relieved that they had not directly caused the patient's death, and simultaneously, guilty as they had not acted according to the patient's wishes or may have prolonged their suffering. Feelings of guilt, anger and fear are recognised amongst nurses who have experienced euthanasia in the Netherlands (Berghs, de Casterle, & Gastmans, 2005), and the findings from the focus groups

in this study clearly demonstrated some of the complexity in attitudes to euthanasia.

Then nurses identified those patients for whom euthanasia might be considered an option. This was aimed at the developing the fictitious scenarios to be used in a subsequent study (see Study 4). Interestingly, the nurses in the nursing home and intensive care unit tended to suggest patients with identifiable conditions such as cancer and degenerative neurological diseases, while the focus of discussion amongst the hospice nurses was on the symptoms the patient might experience. One of the key features of palliative care is symptom control, and this is therefore, an important aspect of care for hospice nurses. While it is not surprising that the hospice nurses identified symptoms rather than conditions, the data generated from the discussion demonstrated the importance of developing realistic and clinically accurate scenarios for future studies if they are to be meaningful and reflect nursing experiences.

2.3.10 Limitations of the study

One criticism of focus group research is that whilst use of the method is often justified because of the benefits of interaction, the interaction is rarely reported or discussed in the research report (Duggleby, 2005; Kitzinger, 1994). A limitation of this study is that such interaction data was not collected or reported. Because of the sensitive nature of the subject under discussion, a decision was made not to audio or video record the discussions and this subsequently, limited data collection to that which could easily be recorded in note form. The second objective of the study was to generate data to be used to formulate stimulus

material in future studies. Therefore, the interaction between focus group members was important in stimulating debate while addressing each question rather than observing and analysing the interaction between group members *per se*. To enhance the validity of the findings, the notes made of the responses to each question were read back and agreed by the participants before moving on to the next question.

A further limitation of the study concerns the freedom the participants had to express views in front of other work colleagues. As discussed above, compromises of confidentiality should not be assumed. Furthermore, all the nurses who participated would be used to caring for dying patients and by definition would have participated in discussions about sensitive subjects such as withholding and withdrawing treatment futile treatment as part of their routine nursing activities. During the focus group interviews, no evidence emerged to support the perception that the discussion was inhibited, nor that any participant voiced radical or extreme views.

2.4 Summary

Content analysis of data obtained during three focus group interviews with nurses in an ICU, hospice and nursing home identified issues that nurses considered to be important in the euthanasia debate. These were the advantages and disadvantages to administering euthanasia, factors nurses would find helpful or a deterrent to administering euthanasia, how they may feel if they either did or did not carry out euthanasia at the patient's request, the influences on the nurses decision making and the types of patients for whom euthanasia might be

appropriate should they request it. Thus, both objectives of the study were achieved.

The data generated in this study was used to formulate questions and stimulus material in three subsequent studies; the questionnaire for the online survey described in Chapter 3 (Study 2); the Q set used in the Q methodological study described in Chapter 4 (Study 3); and the fictitious scenarios and questionnaire used in the TPB study described in Chapter 5 (Study 4).

Chapter 3: A survey of nurses' attitudes to euthanasia

3.0 Introduction

Content analysis of the data obtained from the focus groups in Study 1 revealed the issues that registered nurses with experience in caring for dying patients consider important in the euthanasia debate. The advantages and disadvantages of administering euthanasia to terminally ill patients were identified along with factors nurses would find facilatatory or a deterrent to administering euthanasia. The nurses who participated in the focus groups explored how a nurse might feel if s/he either did or did not administer euthanasia at the patient's request and who and what might influence a nurse's decision to participate in acts of euthanasia. The data generated in Study 1 were used in this second study to develop a questionnaire to survey UK nurses attitudes to euthanasia.

The review of the literature in Chapter 1 discussed the findings of published studies where surveys were used to examine nurses' attitudes to euthanasia. Some studies surveyed nurses attitudes only (Asch, 1996; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave, Margalith, & Goldsmidt, 2001; Musgrave & Soudry, 2000; Tanida et al., 2002), while others included nurses along with other health professionals or members of the general public (Asai, Ohnishi, Nagata, Tanida, & Yamazaki, 2001; Guedj et al., 2005; Musgrave & Soudry, 2000; Ryynanen et al., 2002; Teisseyre et al., 2005). However, wide variations were reported in the nurses' beliefs about the legalisation and moral acceptability of euthanasia. For example, Tanida et al. (2002) reported that while 23% (of 141) Japanese and Australian nurses regarded euthanasia as morally permissible, only

14% stated they would administer it if it was lawful. Whereas Musgrave and Soudry (2000) reported 70% (of 139) nurse-midwives agreed that euthanasia was appropriate for a competent, terminally ill patient, 62% would vote for legalisation of euthanasia, and 36% would be willing to administer it.

While there are several international studies, only two surveys of UK nurses attitudes to euthanasia have been reported, both of which are unreliable. In the first, the findings of a short descriptive survey of 149 readers of the journal *Nursing Times* reported that the majority of the nurses who completed the questionnaire believed that requests for euthanasia should always be granted (Pyne & Booth, 1995). A second survey in the UK, also carried out by the *Nursing Times*, stated that that two thirds of the 2,709 nurses surveyed believed that euthanasia should be legalised, but few details of the survey are given and the detailed findings are not published (Hemmings, 2003). Hence, the attitudes of UK nurses are underrepresented in published surveys.

To address this shortfall, Study 2 of this thesis used an Internet based questionnaire to survey UK nurses attitudes to euthanasia. The questionnaire was developed using data collected from the focus groups described in Chapter 2, a modified version of the Euthanasia Ideology Scale (EIS) (Adams et al., 1978), and the Moral Judgment Test (MJT) (Lind, 1999). The questionnaire consisting of five sections in total was posted on a website linked to the Institute of Psychological Sciences home page.

3.1 Principles of survey research

Survey research is normally used to gather information about a population and draw reliable conclusions about the population being studied (Calder, 1998). Surveys therefore, provide a snapshot of the research topic at any given time and are suited to descriptive studies, to explore aspects of a situation and provide data for subsequent studies (Kelley, Clark, Brown, & Sitzia, 2003). Survey strategies can also be used in analytical studies to examine associations between particular variables.

The stages of survey research are therefore:

- Defining the research questions and the research design (descriptive or analytic).
- Identifying the population and sampling strategy.
- Developing the measures.
- Collecting the data.
- Analysing the data and reporting the findings.

Data are collected using a variety of methods such as focus groups, postal questionnaires, face-to-face and telephone interviews. The method selected will be dependent upon the research questions and the survey design, but pragmatic issues such as cost may also need to be taken into consideration. The size of sample needed for survey research is dependent upon the research design with qualitative surveys using focus groups or interviews needing fewer participants. For quantitative studies, larger samples are considered to give a more accurate estimate of the population, and while the sample should be adequate for the

analysis to be undertaken, compromises usually have to be made because of practical constraints.

The Internet offers a novel opportunity for surveys to conduct surveys more efficiently than by traditional methods. However, biased samples and biased returns can be a problem (Zhang, 1999). Responses are limited to those who have access to the Internet and feel confident to participate and are trusting of Internet surveys. Therefore, one of the key strengths of survey research, access to a wide group of participants to generate a representative sample could be compromised using the Internet to collect data. In spite of this, Internet based surveys reduce the risk of transcription and coding errors, and are particularly useful to access participants when the research subject is sensitive.

3.2 A survey of nurses' attitudes to euthanasia

3.2.1 Objectives

The study had three objectives:

- To explore the motives and attitudes of nurses to euthanasia.
- To assess the participants competence in making moral judgments.
- To examine the similarities and differences in attitudes to euthanasia held by nurses working in different practice areas.

3.2.2 Method

3.2.2.1 Measures

An anonymous web based questionnaire was devised consisting of five sections.

The questions in sections 1, 2 and 3 were derived from the data collected from

the focus groups which were carried out with groups of intensive care unit (ICU), hospice and nursing home nurses described in Chapter 2. The focus group data was also used to derive the statements which formed the Q set used in the Q methodological study in Chapter 4. (See Chapter 4 for a description of the data analysis to obtain the statements for the Q set). These same 40 statements were also used as items in this Internet based questionnaire. As discussed in Chapter 1, ambiguity in the terms used to describe the different types of euthanasia (such as active and passive) is a major problem for research in this area. Several studies report inconsistencies and confusion in the use of each term, even when precise definitions are given in the questionnaires (Aranda & O'Conner, 1995; Asch, 1996; Bilsen et al., 2004; Davis et al., 1993; Kuhse & Singer, 1993; Ubel & Asch, 1997; Wilkes & White, 1995). To overcome this problem, the phrase 'a lethal dose of medication' (LDM) was used rather than the term 'euthanasia' in this survey.

The Euthanasia Ideology Scale (EIS) developed by Adams et al. (1978) was included in section 3 of the questionnaire, while section 4 contained the Moral Judgement Test (MJT) (Lind, 1999), and section 5, biographical information. The complete questionnaire is shown in Appendix 3.1.

3.2.2.1.1 Questionnaire: section 1

Section 1 of the questionnaire contained fourteen items related to the patient's experience with responses measured on a seven point scale anchored at each end '1' strongly disagree, '7' strongly agree.

1. *The patient would be in control of their death if a lethal dose of medication was administered.*
2. *If a lethal dose of medication was administered, the patient could plan their death.*
3. *Administering a lethal dose of medication would prevent distress for the patient.*
4. *Administering a lethal dose of medication would ensure a quick death.*
5. *Patients with distressing symptoms should have the option of having a lethal dose of medication administered.*
6. *If a patient asked you to administer a lethal dose of medication, you wouldn't know if they were making the decision or if someone else was influencing them.*
7. *If health professionals were allowed to administer a lethal dose of medication, patients might be worried about dying before their time.*
8. *It would be better if the patient self-administered the drugs rather than any health professional.*
9. *Administering a lethal dose of medication doesn't allow nature to take its course.*
10. *People should not be forced to stay alive if they do not want to.*
11. *Having the option of requesting that a lethal dose of medication be administered allows patients to make choices about their death.*
12. *Requesting that a lethal dose of medication be administered should be allowed for mental suffering as it is as bad as physical suffering.*
13. *The administration of a lethal dose of medication should be an option for those with a poor quality of life.*

14. *The administration of a lethal dose of medication should only be an option for those mentally competent.*

3.2.2.1.2 Questionnaire: section 2

The second section of the questionnaire contained seven items about the effects of administering euthanasia on the patient's family with responses measured on a seven point scale anchored at each end '1' strongly disagree, '7' strongly agree.

1. *Administering a lethal dose of medication to the patient would prevent distress for the relatives.*
2. *Euthanasia could be abused by the family for financial gain*
3. *Patients may be inappropriately influenced by family members to request a lethal dose of medication to be administered.*
4. *Patients may ask for a lethal dose of medication to be administered because they feel they are a burden to their families.*
5. *If administering a lethal dose of medication was an option, I would have to be convinced that there was no conflict between the multidisciplinary team and the relatives.*
6. *If the patient wanted a lethal dose of medication to be administered, the family would need to be in agreement.*
7. *There should be an opportunity to involve the family in decisions about administering a lethal dose of medication.*

3.2.2.1.3 Questionnaire: section 3

This section contained nineteen items about how a nurse might feel about administering euthanasia to a patient with responses measured on a seven point scale anchored at each *end '1' strongly disagree, '7' strongly agree.*

1. *It would be difficult for the nurse to be sure that a lethal dose of medication was what the patient really wanted.*
2. *It would be easier to administer a lethal dose of medication if you knew the patient and their relatives.*
3. *It would be important to have strict guidelines to follow for administering a lethal dose of medication.*
4. *I would be worried about finding it difficult to apply the guidelines for administering a lethal dose of medication.*
5. *If nurses were allowed to administer a lethal dose of medication to patients it would reduce public confidence in nurses.*
6. *Administering a lethal dose of medication is too big a responsibility for a nurse.*
7. *A nurse administering a lethal dose of medication might feel guilty because they had directly caused the patient's death.*
8. *A lethal dose of medication should only be administered if the patient was suffering and there was nothing else that could be done.*
9. *If asked to administer a lethal dose of medication, I would need to be convinced that it was what the patient wanted.*
10. *I would need to be personally involved with the care of the patient if I was to administer a lethal dose of medication.*

11. *I would need to have a right to refuse to administer a lethal dose of medication without any comeback.*
12. *My religious beliefs would stop me administering a lethal dose of medication.*
13. *I would have a conscientious objection to carrying out a lethal dose of medication.*
14. *Administering a lethal dose of medication is in conflict with the nurse's role.*
15. *If I administered a lethal dose of medication, I would worry about how others would see me and how this may affect my personal relationships.*
16. *A nurse administering a lethal dose of medication might feel relieved that the patient's suffering was at an end.*
17. *If administering a lethal dose of medication was allowed, nurses may give poorer standards of care.*
18. *I would never in any circumstances administer a lethal dose of medication.*
19. *If I thought the circumstances were right (and it was lawful) I would administer a lethal dose of medication.*

Section 3 also included the Euthanasia Ideology Scale developed by Adams et al (1978). The scale consists of four questions measured using a five point Likert scale strongly agree, agree, uncertain, disagree, strongly disagree with the scoring of questions 3 and 4 reversed. This scale was selected as with a test-retest reliability of 0.81 ($p < 0.05$) it is considered to be a reliable measure of ideological positions towards euthanasia (Adams et al., 1978), and because it has

been used in other published research in this area (Laken & Dowd, 1998; Shuman, et al., 1992). In keeping with the other items the questions were adapted and the term 'euthanasia' was replaced with the phrase 'a lethal dose of medication'. The amended questions were:

1. *Administering a lethal dose of medication is wrong regardless of extenuating circumstances.*
2. *Life at any price or condition is better than not worth living.*
3. *Dignity of life should allow one the privilege of deciding the appropriate time to die.*
4. *The prolongation of life, just for the sake of longevity seems personally demeaning.*

3.2.2.1.4 Questionnaire: section 4

To examine the participants' ability to make moral judgements, this section of the questionnaire contained the Moral Judgment Test (MJT) (Lind, 1999), which assesses competence in making moral judgments. The MJT can be found in the complete questionnaire in Appendix 3.1. The MJT distinguishes between the affective and cognitive aspects of moral judgment and so assesses not only the participants' moral judgments but also the ability to use them consistently. The MJT is considered to be a more sophisticated measure than others, such as the Defining Issues Test (DIT) (Rest, 1986), which simply ask participants to evaluate a series of moral argument and therefore, lack cognitive complexity. Lind (2004) argues that moral consistency is necessary for mature levels of moral judgment and to measure moral competence. Therefore, an instrument designed to measure competence in moral judgment should contain a moral task that

requires participants to consider moral dilemmas and evaluate counter arguments against their individual moral opinion along with arguments that support the participants' moral preferences (Lind, 2004).

The MJT consists of two scenarios, the workers' dilemma and the doctor's dilemma. The workers' dilemma describes how two workers break in and take transcripts of a tape from the administrative offices of their employers. They believe that the transcripts will prove that the managers are using an intercom to eavesdrop on the workers' conversations. The doctor's dilemma is particularly appropriate for this study since it describes a terminally ill woman asking her doctor to administer enough morphine to kill her. Following each dilemma, a question asks respondents how strongly they disagree or agree with either the workers' or doctor's behaviour. Responses are measured on a seven-point scale anchored at each end –3 strongly disagree, +3 strongly agree. This question is then followed by two series of six arguments for each dilemma. In the first series, participants are asked how acceptable they find each of the arguments in favour of either the workers' or doctor's behaviour, and in the second series of arguments they are asked how unacceptable they find the arguments against the workers' or doctor's behaviour. Responses are measured on a nine-point scale anchored at each end '-4' strongly disagree, '+4' strongly agree. The aim of the MJT is to discover whether the participants based their ratings on the moral qualities of the arguments or whether their judgment is simply based upon whether the arguments presented correspond or conflict with their opinion on the issue.

The MJT produces a "C-score" which reflects the degree to which a participant's judgment about the arguments for and against the workers' and doctor's behaviour is determined by moral points of view. Rather than simply measuring how much participants agree or disagree with the actions of the individuals in the scenario, the C-score measures the participant's evaluation of the series of arguments used to either defend or object to the actions of the workers' or the doctor.

Moral judgment research has also been challenged on the grounds that such tests reflect preference for language sophistication rather than levels of moral reasoning (Moran and Joniak, 1979), or that the participants' responses may reflect prior preferences rather than evaluation of moral reasoning (Martin, Shafto, & Deinse, 1977). Brugman (2003) identifies a methodological dilemma in the construction of not only the MJT, but in any instrument which aims to measure moral competence. Instruments like the MJT and DIT aim to measure the structure of moral argument, that is how consistent and differentiated the person argues, but such information is needed to evaluate the psychometric quality of the instruments. Therefore, the individual variation in moral judgment had to be either viewed as a feature of the cognitive abilities of the person or viewed as a characteristic of the instrument. For the MJT in particular, some confusion of how the C-scores relate to the stages of moral development has been noted (Villegas de Posada, 2005). While the theoretical validity of the MJT has been supported in a range of empirical studies (Gross 1977), Brugman (2003) suggests that further empirical validation of the MJT's ability to measure moral competence more accurately than other measures remains necessary.

3.2.2.1.5 Questionnaire: section 5

Biographical data was obtained via 5 questions in the final section of the questionnaire. Participants were asked to specify their gender and professional and academic qualifications. From a list of eleven options, participants were asked to identify which best described their main area of work and from a further five options their area of practice. Participants were also presented with three options about their religious beliefs and asked to indicate if they held no religious beliefs, held strong religious beliefs and attended religious services regularly, or if they held religious beliefs but did not often attend services.

3.2.2.2 Procedure

The questionnaire was posted on the Institute of Psychological Sciences website and was open to any student or registered nurse to complete. Using a volunteer sampling strategy (Calder, 1998), information about the study was publicised through academic and clinical contacts in Leeds, Salford, Bristol, London and Sheffield and broader dissemination occurred from each of these locations. Information was also posted through Nurse UK, an Internet based discussion list, the weekly email update from the Royal College of Nursing Research & Development Co-ordinating Centre and through the professional advisor network at the Royal College of Nursing.

3.2.2.3 Ethical considerations

The study was carried out within the guidelines of the British Psychological Society. Ethical approval was sought and obtained from Ethics Committee of the

Institute of Psychological Sciences at the University of Leeds. All data were collected anonymously.

3.2.2.4 Sample

A total of 532 individuals visited the website and 381 nurses began the questionnaire. Inspection of the data showed 64 responses to be substantially incomplete and therefore, this data was totally excluded from the analysis. Only two students completed the questionnaire, and this data was also removed from the analysis giving a total of 315 responses suitable for analysis. As discussed below, a further 13 participants completed a paper version of the questionnaire and therefore, data from 328 participants was analysed. However, some of respondents who completed the questionnaire online failed to complete all the questions in section five of the questionnaire and therefore, biographical data is missing from these respondents.

The practice area of the nurses was carefully scrutinised along with any information participants had included in the free text option to describe their area of practice. Sixty-one respondents described their area of work using the 'other' option and gave details of this in free text. The responses from these respondents was scrutinised and where possible the respondents place of work was categorised into one of the six new areas shown above. For example some respondents indicated they were specialist or consultant nurses working in hospital specialities or within the community. Where this was clearly indicated, the respondents were appropriately recategorised. Any nurse who indicated they worked with older people was categorised as older adults, and any indicating

they worked in palliative care were categorised into the new palliative care area. All other respondents who could not be placed in the new clinical area were categorised as miscellaneous. To reduce the risk of small cell occupancy, the clinical areas were recoded into six new areas as shown in Table 3.1.

Table 3.1 Recoding of nurses' area of work.

Area of work in questionnaire	New areas
Critical care in a hospital	Hospital
Medicine in a hospital	Hospital
Surgery in a hospital	Hospital
Community based	Community
Working with older people in a hospital	Older Adults
Working in a hospice	Palliative
Working in a nursing home	Older Adults
Management	Miscellaneous
Education	Education

There were fewer responses from nurses working with older people (n = 22) and access to the Internet is not necessarily routine in nursing homes. Therefore, 15 paper copies of the questionnaire were issued to nurses working in a nursing home and 13 were returned and included in the analysis. Clinical area was therefore, recorded for 270 participants. The distribution of respondents by clinical area is shown in Table 3.2.

Table 3.2 Clinical area of respondents (N = 270)

Clinical area	
Hospital	44 (16%)
Community)	31 (12%)
Older	35 (13%)
Palliative	63 (23%)
Education	58 (22%)
Miscellaneous	39 (14%)

The gender of 269 participants was recorded and most of the respondents were female (n = 238). While only 11% of the sample was male (n = 31), this is consistent with the gender balance of the professional register where approximately 10% of those registered as nurses are male (NMC, 2002).

Table 3.3 shows an overview of the qualifications for 262 participants. While all in the sample were registered nurses, respondents were asked to tick all boxes that applied since there are multiple routes to registration at certificate, diploma and degree level. Furthermore, some nurses complete diplomas and degrees following programmes of study leading to registration. Hence, the options selected by respondents were scrutinised and reclassified according to the highest qualification that each respondent specified. The new categories were; those holding RGN only (which by definition would be at certificate level), those educated to diploma level, those holding a first degree, a masters degree and finally those with a research degree.

Table 3.3 Qualifications of respondents (N = 262)

Qualifications	
RGN	23 (9%)
Diploma	68 (26%)
Degree (BA, BSc)	63 (24%)
Masters degree	94 (36%)
Research degree	14 (5%)

The religious beliefs for 271 participants were recorded. The majority of nurses held moderate religious beliefs (n = 118 (44%), 23% held strong religious beliefs (n = 63), and a further 90 participants (27%) stated they had no religious beliefs.

Therefore, the majority of nurses in this sample held either moderate or strong religious beliefs (n = 181, 67%).

3.2.3 Data analysis

The mean score of the EIS was calculated for each participant. As one of the objectives of this study was to examine the similarities and differences in attitudes to euthanasia held by nurses working in different practice areas, univariate analysis of variance (ANOVA) was performed to examine the main effects of the nurses' area of practice, religiosity and their qualifications. Although this showed some sign of non-normality, with this sample size the distribution of F tends to normal, thus supporting the use of ANOVA (Rosenthal & Rosnow 1991). The C-scores for each participant were calculated from the MJT. The SPSS syntax for calculating the C-score was obtained from the author (Lind, personal communication, June 12, 2006), and the algorithm for calculating the score is shown in Appendix 3.2. Moral competence is measured through multivariate analysis of intra-individual difference and produces a score on a scale of 1-100 which shows the percentage of response variance explained by a consistent set of moral preferences (Gross, 1999). The score can range from 1 to 100, and is graded as low (1-9), medium (10-29), high (30-49), and very high (<50) (Lind, 1999). The effect of the participants area of practice, religiosity and qualifications on their level of approval of the workers' and doctor's actions in the MJT were also examined using ANOVA.

Data obtained from 40 items in the questionnaire relating to the patients, relatives and nurses experience were analysed by exploratory factor analysis

using principal components analysis (PCA), and eigenvalues extracted. Reliance on eigenvalues can result in an overestimation of the number of factors (Tabachnick & Fidell, 2001), hence a scree plot was also examined. Using this method, eigenvalues are plotted on a line graph with the eigenvalue highest for the first factor and decreasing through the factors with smaller eigenvalues. Factors which fall to the right of the point where the line flattens out are disregarded, and only those to the left of this point are retained (Cattell, 1966). Correlations among the factors obtained from analysis of this data, the C-scores and the EIS were calculated. Finally, ANOVA was used to examine the main effect of clinical area and religiosity on the two items which specifically asked participants about their willingness to participate in euthanasia.

3.2.4 Results

3.2.4.1 The Euthanasia Ideology Scale

A total of 296 participants completed the Euthanasia Ideology Scale, and the overall mean score was 3.54 (SD = 1.15). Further analysis using one-way ANOVA was performed to examine the main effect of the nurses' area of practice on 270 respondents who had specified their practice area. While this was significant ($F(5,264) = 2.50$, $p<0.05$), it could be a statistical artefact as no pairs of means were found to be significant from post-hoc comparisons. Table 3.4 shows the mean scores for each group of nurses, which are similar, and towards the centre of the scale.

Table 3.4 Means and standard deviations for the Euthanasia Ideology Scale by clinical area (N = 270)

Clinical area of nurse	N	$\bar{X}$	SD
Hospital	44	3.93	0.94
Community	31	3.25	1.30
Older Adult	35	3.83	1.23
Palliative Care	63	3.38	1.05
Education	58	3.7	1.13
Miscellaneous	39	3.40	1.21

Analysis using one-way ANOVA to examine the main effect of religiosity showed a significant difference ($F(2,268) = 18.05$, $p<0.001$) amongst the 271 respondents who indicated the strength of their religious beliefs. Post-hoc comparisons showed the nurses holding strong religious beliefs to have lower EIS scores ($\bar{X}$=2.92, SD=1.27) than those with either moderate ($\bar{X}$=3.64, SD=1.09), or no religious beliefs ($\bar{X}$=4.00, SD=0.92). Further analysis to examine the main effect of the qualifications of respondents was found not to be significant ($F(4,257) = 2.14$, ns).

3.2.4.2 The Moral Judgment Test

A total of 275 participants completed the MJT and Table 3.5 shows aggregated responses to the questions asking if they disagreed or agreed with the workers' and doctor's behaviour.

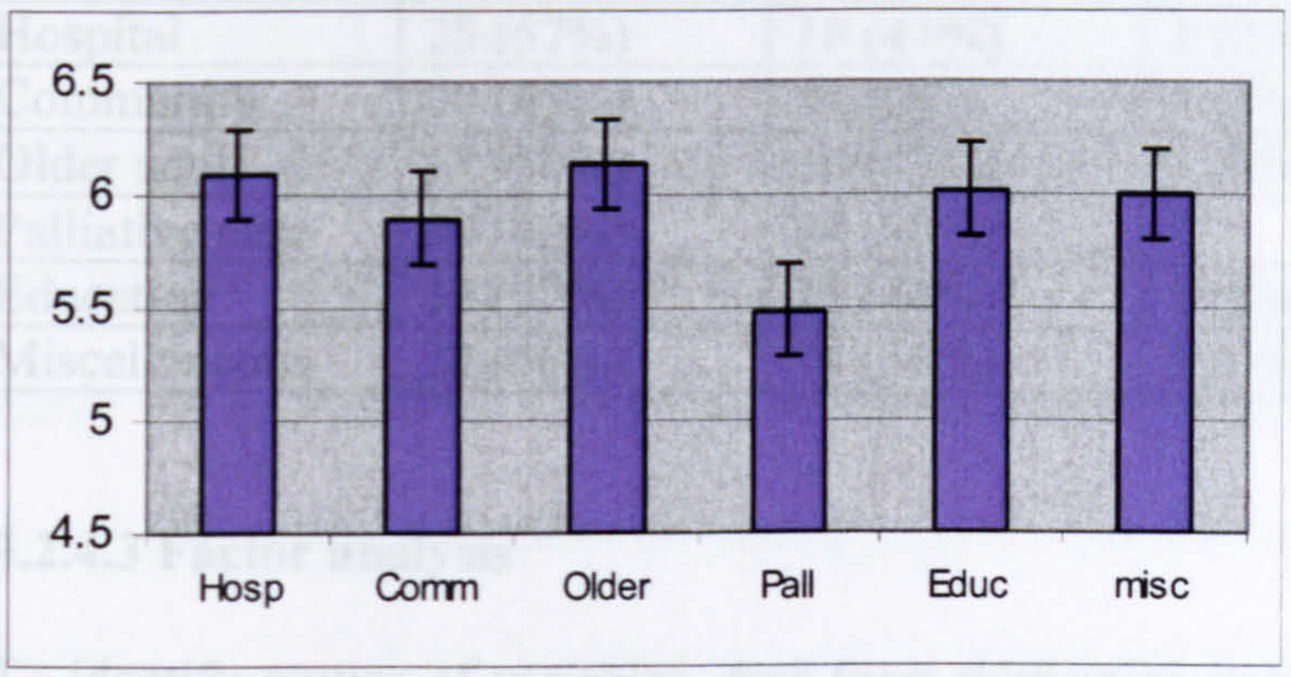
Table 3.5 Level of agreement with the workers' and doctor's behaviour (N = 275)

MJT	Disagree	Neutral	Agree
Workers' dilemma	122 (44%)	38 (14%)	115 (42%)
Doctor's dilemma	140 (51%)	24 (9%)	111 (40%)

Using ANOVA to analyse the participants, actual scores showed no significant differences were found between the level of agreement or disagreement with the worker's behaviour and the clinical area of the nurse (F (5,264) = 1.95, ns) nor the strength of the respondents' religious beliefs (F (2,268) = 2.78, ns). But, differences were found between the level of agreement with the workers' behaviour and the respondents' qualifications (F (4,257) = 2.57, $p<0.05$). Post hoc comparisons showed that the nurses holding a master's degree ($\bar{X}$=3.94, SD=2.02) were more likely to approve of the workers' behaviour than those educated to first-degree level ($\bar{X}$=2.94, SD=2.01).

In the doctor's dilemma section of the MJT, significant differences were found between the level of agreement or disagreement with the doctor's behaviour and the clinical area of the nurse (F (5,264) = 3.53, $p<0.01$). Post hoc comparisons illustrated in Figure 3.1, showed the palliative care nurses ($\bar{X}$=5.49, SD=0.84) disagreed more with the behaviour of the doctor than nurses who worked in hospitals ($\bar{X}$=6.09, SD=0.96), with older adults ($\bar{X}$=6.14, SD=0.94), and also those who worked in education ($\bar{X}$=6.02, SD=0.96).

Figure 3.1 Means and error bars for the doctor's dilemma across the clinical areas (N = 270)



Analysis using one-way ANOVA showed a significant main effect of religiosity (F (2,268) = 6.59, $p<0.01$) with nurses holding no religious beliefs ($\bar{X}$=6.12, SD=0.95) being more likely to approve of the doctor's actions than those with strong religious beliefs ($\bar{X}$=5.60, SD=0.89). In contrast to the workers' dilemma, examination of the main effect of the qualifications of respondents was found not to be significant in the doctor's dilemma (F (4,257) = 0.14, ns).

The C-score was derived from the participants' responses in the MJT and measures the degree to which the person's judgment is determined by moral concerns. Given the concerns discussed above regarding the validity the instrument to measure this, the findings should be treated with caution. C-scores were calculated for 271 participants and despite the fact that 65% of the participants were educated at least to degree level, overall the scores were low with a minimum of 0 and a maximum of 72 ($\bar{X}$ = 10.51, SD = 8.70). Table 3.6 shows the C-scores for the participants across the clinical areas. No correlation was found between the C-score and participant qualifications (r = 0.33, n = 262, ns).

Table 3.6 Distribution of C-scores across the clinical areas (N = 271)

C-scores	Low	Medium	High	Very high
All areas	157 (58%)	106 (39%)	7 (3%)	1 (0.4%)
Hospital	25 (57%)	18 (41%)	1 (2%)	0
Community	20 (67%)	9 (30%)	1 (3%)	0
Older adult	17 (50%)	16 (47%)	1 (3%)	0
Palliative care	29 (62%)	24 (38%)	0	0
Education	33 (57%)	23 (40%)	1 (2%)	0
Miscellaneous	22 (56%)	14 (36%)	2 (5%)	1 (3%)

3.2.4.3 Factor analysis

To identify groups of variables, data from thirty-nine items in the questionnaire relating to the patients, relatives and nurses experience were analysed by exploratory factor analysis using principal components analysis (PCA). Eight factors with eigenvalues greater than one were extracted. Together these explained 64.8% of the variance. The scree test suggested a three-factor solution was appropriate. However, since the scree test relies on subjective judgement, it may result in too few factors being retained, therefore, three, four and five factor solutions were examined to see which produced the clearest and most interpretable factor solution.

Oblique rotation which permits the underlying factors to be correlated with three, four and five factor solutions generated no readily interpretable solution. Orthogonal rotation using varimax to maximise the amount of variance explained by the extracted factors was also performed for three, four and five factor solutions. The five-factor solution was disregarded as only one item loaded cleanly on factor four and two on factor five. While there is debate about the number of items required to constitute a factor, Watson and Thompson (2006) recommend no fewer than three. While loadings greater than 0.3 are generally

considered to be acceptable, to reduce the possibility of cross loading in this analysis, only items loading at 0.4 were considered to be cleanly loading on one factor (Ferguson & Cox, 1993). The four-factor solution revealed thirteen items loading cleanly on factor 1, nine on factor 2, seven on factor 4 and two on factor 4. The remaining eight items cross-loaded on two or more factors. The three factor solution showed eleven items loading cleanly on factor 1, twelve on factor 2, and five on factor 3. The remaining eleven items cross-loaded on two or more factors.

To ensure the most appropriate interpretation of the data both the three and four factor solutions were subjected to further analysis. Cooper suggests, "*a low communality implies that an item does not overlap with the common factors, either because it measures a different concept, because of excessive measurement error, or because there are few individual differences in the way in which people respond to the item*" (Cooper, 2002, p93). The communalities of each item were subsequently examined, and seven items with values of less than 0.4 were removed from the second stage of the analysis. Varimax rotation was again performed extracting three and four factors from the remaining 32 items. The four factor solution showed nine items cleanly loading on factor 1, seven on factor 2, five on factor 3, three on factor 4 and eight items cross loading across two factors. The three-factor solution showed nine items cleanly loading on factor 1, ten on factor 2, five on factor 3, and eight items cross loading across two factors.

Both solutions showed a number of items cross loading across two factors. Watson and Thompson (2006) suggest removing such items, as they do not contribute to understanding the data. Therefore, the eight cross-loading items were removed and the remaining items were again subjected to varimax rotation with three and four factors extracted from the remaining 24 items. In the four-factor solution, this final rotation showed nine items cleanly loaded on factor 1, seven on factor 2, six on factor three, but only two on factor four. This solution was therefore, discarded as fewer than three items loaded on the fourth factor and the interpretation of this factor was not readily discernable. The three-factor solution produced the best-fit explaining 51.81% of the variance. This solution was statistically supported, conformed to the scree test and provided three clearly interpretable factors. Following careful examination of the item loading on each factor, the factors were labelled as 1) the nurses' concerns about administering euthanasia (explaining 33.35% of the variance), 2) patient control and the alleviation of suffering (explaining 12.05% of the variance) and 3) conditions for administering euthanasia (explaining 6.44% of the variance). The loading of items for the three-factor solution and shown in Table 3.7.

Table 3.7 Loading of items on factors in the three-factor solution

Items	Factor 1	Factor 2	Factor 3
A nurse administering a LDM might feel guilty because they had directly caused the patient's death	0.74	0.26	0.05
Patients may ask for a LDM to be administered because they feel they are a burden to their families.	0.72	0.10	0.15
Patients may be inappropriately influenced by family members to request a LDM be administered.	0.70	0.14	0.15
If nurses were allowed to administer a LDM to patients it would reduce public confidence in nurses.	0.70	0.36	0.12
If I administered a LDM, I would worry about how others would see me and how this may affect my personal relationships.	0.66	0.15	0.17
It would be difficult for the nurse to be sure that a LDM was what the patient really wanted.	0.63	0.32	0.05
Administering a LDM is too big a responsibility for a nurse.	0.63	0.33	0.14
If a patient asked you to administer a LDM, you wouldn't know if they were making the decision or if someone else was influencing them.	0.56	0.32	0.06
If health professionals were allowed to administer a LDM, patients might be worried about dying before their time.	0.55	0.36	0.06
I would be worried about finding it difficult to apply the guidelines for administering a LDM.	0.55	0.25	0.29
The administration of a LDM should be an option for those with a poor quality of life.	0.25	0.76	0.08
Having the option of requesting that a LDM be administered allows patients to make choices about their death.	0.34	0.73	0.12
Requesting that a LDM be administered should be allowed for mental suffering, as it is as bad as physical suffering.	0.11	0.70	0.03
A LDM should only be administered if the patient was suffering and there was nothing else that could be done.	0.07	0.64	0.25
People should not be forced to stay alive if they do not want to.	0.25	0.62	0.01
The patient would be in control of their death if a LDM was administered.	0.38	0.61	0.27
If a LDM was administered, the patient could plan their death.	0.36	0.61	0.05
Administering a LDM to the patient would prevent distress for the relatives.	0.35	0.61	0.05
The administration of a LDM of medication should only be an option for those mentally competent.	0.16	0.60	0.32
There should be an opportunity to involve the family in decisions about administering a LDM.	0.12	0.14	0.72
If the patient wanted a LDM to be administered, the family would need to be in agreement.	0.05	0.24	0.70
It would be important to have strict guidelines to follow for administering a LDM.	0.03	0.25	0.69
If administering a LDM was an option, I would need to be convinced that there was no conflict between the multidisciplinary team and the relatives.	0.14	0.11	0.63
I would need to be personally involved with the care of the patient if I was to administer a LDM	0.04	0.39	0.55

3.2.4.4 Correlations between dependent variables

Correlations among the three factors (the nurses' concerns about administering euthanasia, patient control and the alleviation of suffering and conditions for administering euthanasia), the C-scores and the Euthanasia Ideology Scale were calculated and are shown in Table 3.8.

Table 3.8 Correlations among C-scores, the EIS and three factors across all participants

	Factor 2	Factor 3	C-score	EIS
Factor 1 concerns	-0.57**	0.00	-0.35**	-0.61**
Factor 2 control & suffering		0.29**	0.32**	0.73**
Factor 3 conditions			-0.03	0.20**
C-score				0.32**

(** = $p<0.01$)

Factor 1 was strongly related to factor 2 showing that increasing concerns about administering euthanasia were associated with decreasing emphasis being placed upon patient control and the alleviation of suffering. Factor 3 was associated with factor 2 in that increasing emphasis on the conditions for administering euthanasia were associated with increasing concerns about patient control and suffering. Factor 2, patient control and the alleviation of suffering was most strongly related to the EIS score ($r = 0.73$, $n = 296$, $p<0.01$) indicating that increasing issues about the patient being in control and the alleviation of suffering were associated with higher EIS scores. Factor 1, was also strongly related to the EIS and increasing concerns about administering euthanasia were associated with lower EIS scores ($r = -0.61$, $n = 296$, $p<0.01$). These findings are not surprising as lower EIS scores are associated with negative attitudes towards

euthanasia where as higher scores indicate a more positive attitude toward euthanasia.

Factors 1 and 2 were also strongly related to the C-score. Where-as concerns about administering euthanasia were associated with lower C-scores ($r = -0.35$, $n = 271$, $p<0.01$), increasing emphasis on patient control and suffering were associated with increasing C-scores ($r = -0.32$, $n = 271$, $p<0.01$). The C-scores were also related to the EIS with increasing C-scores associated with increasing EIS scores ($r = 0.32$, $n = 271$, $p<0.01$). As higher C-scores indicate judgments based on the moral qualities of the arguments, these findings show that the more sophisticated the participants moral judgment, the more likely they were to hold positive attitudes to euthanasia.

Further correlations were calculated between the same dependent variables across each of the practice areas of the participants and are shown in Table 3.9. Across all groups factor 1, concerns about administering euthanasia remained significantly negatively correlated with factor 2, patient control and suffering but factor 3, conditions for administering euthanasia was only related to factor 2 amongst the palliative care nurses ($r = 0.39$, $n = 63$, $p<0.01$), those in education ($r = 0.28$, $n =58$, $p<0.05$), and for the miscellaneous group ($r = 0.48$, $n = 39$, $p<0.01$). Factor 1 also remained significantly negatively correlated with the EIS across each practice area.

The C-score continued to be significantly negatively correlated with factor 1 for the hospital nurses ($r = -0.41$, $n = 44$, $p<0.01$), the palliative care nurses ($r = -$

0.43, n = 63, p<0.01), those in education (r = -0.48, n = 57, p<0.01), and the miscellaneous group (r = -0.45, n = 39, p<0.01). Factor 1 was not related to the C-score amongst the community nurses and those that care for older adults nor was C-score found to be related to the EIS in both these groups. But an association remained between the C-score and the EIS for the hospital nurses (r = 0.41, n = 44, p<0.01), the palliative care nurses (r = 0.43, n = 63, p<0.01), those in education (r = 0.50,n = 57, p<0.01), and the miscellaneous group (r = 0.32, n = 39 p<0.01). Factor 2, patient control and suffering remained related to the C-score in the hospital nurses (r = 0.46, n = 44, p<0.01), palliative care nurses (r = 0.42, n= 63, p<0.01), and those in education only (r = 0.49, n = 57, p<0.01).

Table 3.9 Correlations among C-scores, the EIS and three factors across the clinical areas

Practice Area	Factor 2	Factor 3	C-score	EIS
Hospital				
Factor 1 concerns	-0.52**	-0.21	-0.41**	-0.69**
Factor 2 control & suffering		0.29	0.46**	0.71**
Factor 3 conditions			0.10	0.36*
C-score				0.41**
Community				
Factor 1 concerns	-0.49**	0.27	-0.32	-0.63**
Factor 2 control & suffering		0.14	0.17	0.77**
Factor 3 conditions			-0.22	0.13
C-score				0.17
Older adult				
Factor 1 concerns	-0.69**	0.28	-0.09	-0.67**
Factor 2 control & suffering		-0.12	0.11	0.64**
Factor 3 conditions			-0.15	-0.13
C-score				0.18
Palliative care				
Factor 1 concerns	-0.64**	-0.17	-0.43**	-0.67**
Factor 2 control & suffering		0.39**	0.42**	0.75**
Factor 3 conditions			0.05	0.33**
C-score				0.43**
Education				
Factor 1 concerns	-0.78**	-0.51	-0.48**	-0.75**
Factor 2 control & suffering		0.28*	0.49**	0.79**
Factor 3 conditions			-0.41	-0.22
C-score				0.50**
Miscellaneous				
Factor 1 concerns	-0.70**	-0.54	-0.45**	-0.70**
Factor 2 control & suffering		0.48**	0.30	0.80**
Factor 3 conditions			-0.13	0.24
C-score				0.32*

(** = p>0.01. * = p>0.05)

3.2.4.5 Willingness to perform euthanasia

Two questions directly addressed participants' willingness to administer a lethal dose of medication. Participants were asked how much then disagreed or agreed with a) *I would never in any circumstance administer a lethal dose of medication*, and b) *If I thought the circumstances were right (and it was lawful) I*

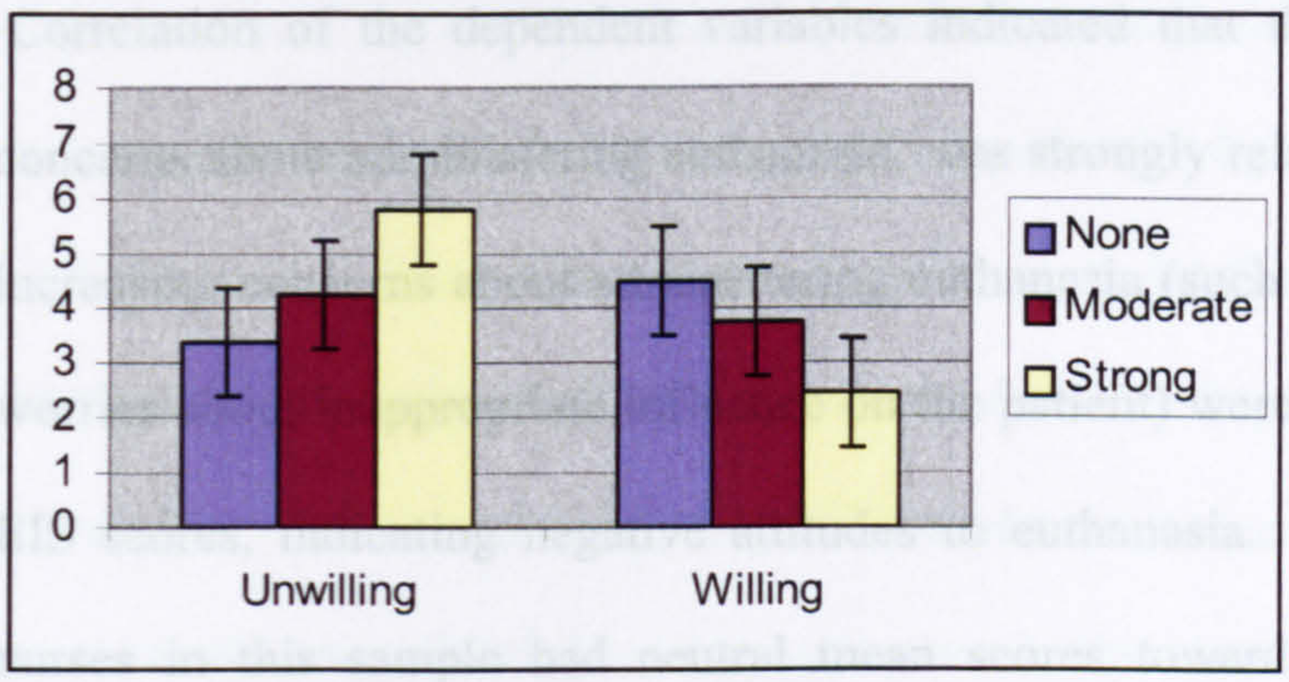
would administer a lethal dose of medication. Neither item significantly loaded on any of the three factors derived from the factor analysis. The mean score for a) was 4.32, SD = 2.40 indicating that the nurses in this sample were neutral about never in any circumstance administering a lethal dose of medication. The mean score for b) was 3.71, S.D = 2.34, indicating slight disagreement with the statement about administering a lethal dose of medication if they thought the circumstances were right.

Further analysis using one-way ANOVA was performed on both these items to examine the main effect of the nurses' area of practice but no significant differences were found for either a) *I would never in any circumstance administer a lethal dose of medication* (F (5,264) = 1.94, ns) or b) *If I thought the circumstances were right (and it was lawful) I would administer a lethal dose of medication* (F (5,264) = 1.98, ns).

However, examination of the main effect of religiosity revealed significant differences in the nurses willingness to administer euthanasia for a) *I would never in any circumstance administer a lethal dose of medication* (F (2,268) = 21.84, $p < 0.001$) and b) *If I thought the circumstances were right (and it was lawful) I would administer a lethal dose of medication* (F (2,268) = 16.07, $p<0.001$). As Figure 3.2 shows, the participants with strong religious beliefs ($\bar{X}$=5.83, SD=1.97), were more likely to agree with a), and consequently less willing to administer euthanasia than those who either moderate ($\bar{X}$=4.27, SD=2.36) or no religious beliefs ($\bar{X}$=3.38, SD=2.31). Conversely, the respondents with no religious beliefs ($\bar{X}$=4.53, SD=2.24), were more likely to

agree with b) and were thus, more willing to administer euthanasia than those with either moderate ($\overline{X}$=3.73, SD=2.24) or strong religious beliefs ($\overline{X}$=2.26, SD=2.18)

Figure 3.2 Willingness to perform euthanasia and strength of religious beliefs (N = 271)



Yet, only 8.5% of the respondents (n 296) strongly agreed that their religious beliefs would stop them administering euthanasia.

3.2.5 Discussion

The first objective of this study was to explore the motives and attitudes of UK nurses to euthanasia and factor analysis of the data revealed three significant factors. The first factor explaining the greater percentage of variance (33.35%) revealed the nurses' concerns about administering euthanasia. The statements defining this factor were concerns about feelings of guilt for directly causing the patient's death, applying guidelines for administration, inappropriate influence on the patient to request euthanasia and worries about the public perception of nurses if they carried out acts of euthanasia. Similar fears over the potentially

negative effect on nursing practice should nurses administer euthanasia have been found in previous studies (Davis et al., 1993; Kuuppelomäki, 2000; Richardson, 1994; Tanida et al., 2002), and feelings of guilt and moral conflict have been expressed by Belgian nurses (De Bal, De Casterle, Berghs, & Gastmans, 2004).

Correlation of the dependent variables indicated that this factor, the nurses' concerns about administering euthanasia, was strongly related to the EIS in that increasing concerns about administering euthanasia (such as feelings of guilt, or worries about inappropriate influence on the patient) were associated with lower EIS scores, indicating negative attitudes to euthanasia. However, overall the nurses in this sample had neutral mean scores towards never administering euthanasia in any circumstances while slightly disagreeing that they would be willing to carry out acts of euthanasia if the circumstances were right. While the statements defining factor one generally portray negative attitudes to euthanasia, they do not necessarily indicate the nurses willingness or otherwise to carry it out. This finding concurs with other published studies where fewer nurses indicate their willingness to participate in acts of euthanasia in comparison to those who consider it morally acceptable (Asai et al., 2001; Kuhse & Singer, 1993; Richardson, 1994; Tanida et al., 2002). Therefore, while this factor clearly indicates the concerns nurses may have when confronted with decisions about euthanasia, no clear conclusions can be drawn from this study regarding their willingness to administer it.

The second factor explaining 12.05% of the variance was concerned with patient control and suffering. The statements that defined this factor showed more positive attitudes towards euthanasia, such as it being an option for those with a poor quality of life or that people should not be forced to stay alive, as well as euthanasia allowing patient to be in control, to make choices, plan their death and prevent distress for the relatives. Whereas the statements that define factor one mainly address the nurses' concerns, these statements are directed towards the patient experience. The need to maintain a patient's dignity in death and avoid suffering and pain is noted in previous research in this area (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995). In the recent poll of *Nursing Times* readers, giving individuals choices over what constitutes a good death and allowing patients to choose the manner of their death are described as "*common statements*" (Hemmings, 2003, p21), but no data are presented to support these assertions. Nevertheless, the fact that nurses feel the need to respect patient autonomy and act in ways that positively benefit patients and clients (such as the alleviation of pain and suffering) is an expected finding as these values are central themes to the philosophy of nursing and prevalent in the codes of practice issues by regulatory bodies (NMC, 2004). Furthermore UK nurses have been found to demonstrate greater commitment than US nurses toward patient autonomy and decision making (Dickenson, 2000).

There is an apparent contradiction between two statements that define this factor in that a) *Requesting that a lethal dose of medication be administered should be allowed for mental suffering as it is as bad as physical suffering*, and b) *The administration of a lethal dose of medication should only be an option for those*

mentally competent, both cleanly loaded on factor two. This is an interesting finding which is not easily explained as mental suffering (for example a person with profound memory loss due to Alzheimer's disease), could quite plausibly be associated with diminished mental competence. What may be at issue is the timing of a request for euthanasia. Advocates of euthanasia generally propose its use only for those competent to voluntarily ask for it, and its administration to those unable to request it (such as a child or for someone who lacks capacity) is more controversial. One of the qualifying conditions of Lord Joffe's Assisted Dying of the Terminally Ill Bill recently debated by in the House of Lords was that the attending physician should have *"been informed by the patient in a written request signed by the patient that the patient wishes to be assisted to die*" (House of Lords, 2005, p2). Even in countries where euthanasia is lawful, it can only occur with the explicit consent of the patient and thus, can only be voluntary (Roscam Abbing, 1988). However, it would be possible for a person to request euthanasia be carried out while they still had capacity to make such a request, for example by preparing a written advanced directive. Consequently, should there be a point in the future where the person became mentally incapacitated, their wishes would have been clearly stated. While euthanasia remains a criminal act, such a request cannot be made in an advance directive, and these issues were publicly discussed in the UK courts in the Dianne Pretty case (Singer, 2002). Therefore, it is possible for a nurse to agree that euthanasia should be an option for mental suffering, but only if the decision had been made while the person remained mentally competent. However, the disadvantage of data obtained from questionnaires is that the reasoning behind the selection of responses cannot be probed and subsequently no clear inferences can be drawn.

The third factor explaining 6.44% of the variance was concerned with conditions for administering euthanasia. The statements that defined this factor showed that being personally involved with the care of the patient, having strict guidelines to follow, the family being involved in the decision without disagreement between them and the multidisciplinary team, were important themes. Even amongst nurses who are generally supportive of euthanasia, conditions on its use are discussed. While nursing concerns were important conditions for administering euthanasia for two items, the need for family involvement in the decision making process was a feature in three of the five items. The role of family members in the euthanasia debate is interesting. While it is recognised that there is a possibility of family members exerting undue pressure on patients, health professionals consider involving family members in decisions about the patient's care and treatment decisions as good practice. Their caring role therefore, extends further than just being focused on the patient. The National Council of Palliative Care for example, describes the goal of palliative care as achieving "*the best quality of life for patients and their families*" (National Council for Palliative Care, 2005, p1). Nurses in countries where euthanasia is lawful have noted the importance of avoiding conflict between the multidisciplinary team and family members (Verpoort, Gastmans, & de Casterle, 2004). The need to respect the autonomous decision of the patient is paramount but this concept of individual autonomy is challenged by the fact that the patient is enmeshed in a system of social relationships.

The wide variation in health professionals' beliefs about the legalisation and moral acceptability of euthanasia is reported in the literature (House of Lords,

2004; Musgrave & Soudry, 2000; Tanida et al., 2002; Verpoort, Gastmans, De Bal et al., 2004). However, in this study the mean EIS scores for the two items that directly addressed the respondent's willingness or otherwise to participate in euthanasia were towards the centre of the scale suggesting a degree of uncertainly and ambivalence towards euthanasia amongst the participants. Hagelin, Nilstun, Hau, and Carlsson (2004), discuss the disadvantages of dichotomous responses in attitudinal research and the controversy over including a "don't know" response. They suggest that offering a neutral response may discourage participants from reporting their true beliefs, and subsequently mask more meaningful views on the subject. To avoid this, the response formats in this study used Likert type scales which are considered to facilitate the capture of the nuance of attitudes that cannot be achieved with dichotomous response formats (Cohen et al., 2006). However, scores in the middle regions of scales may be due to *"a lukewarm response, lack of knowledge or lack of attitudes in the respondent (leading to many uncertain responses) – or to the presence of both strongly positive and strongly negative responses which more or less balance each other"* (Oppenheim, 1992, p200). Consequently the subtlety of attitudes to controversial questions such as euthanasia may have been lost in using a survey design.

When religiosity was accounted for, significant differences were found in both the EIS mean scores and those of the items specifically addressing the nurses' willingness to participate in acts of euthanasia. These findings concur with other studies that have shown the strength of a nurses religious beliefs to be related to their acceptance of euthanasia (Bittel et al., 2001; Davis et al., 1993; Kitchener,

1998; Kuhse & Singer, 1993; Musgrave & Soudry, 2000; Ryynanen et al., 2002). The majority of nurses in this sample held either moderate or strong religious beliefs (n = 181, 67%) however, only a small percentage strongly agreed that their religious beliefs would stop them administering euthanasia (8.5%).

The second objective of the study was to assess the participant's competence in making moral judgments. This was achieved by calculating each participant's C-score from the MJT. Few participants had a high or very high score (4% of the sample), and the majority of scores were classified as low (58%) or medium (39%). Therefore, the participants only weakly or moderately based their ratings on the moral qualities of the arguments. The low and moderate scores indicate that their judgments are more likely to be based upon how closely the arguments corresponded or conflicted with the participants opinions on the issue.

Lind (2004) contends that moral behaviour is a learned activity influenced by a person's family, teachers and religious instructors. Nurses will receive some education in ethics during their educational programmes, and although the NMC stipulates ethical practice as one of the competencies to be achieved by nurses in pre-registration programmes, how this is achieved will vary across institutions. A recent survey of pre-registration nursing programmes in the UK showed marked variations in the learning, teaching and assessing of ethics. Students in some institutions studied ethics in specific modules while others had the subject integrated into nursing modules, not all were taught by teachers with qualifications in ethics and some had their learning assessed while others did not (Holt, 2006). While ethics teaching should not seek to promote a particular

attitude towards euthanasia, the variation in ethics learning, teaching and assessment may account for the lower C-scores as not all nurses necessarily have the opportunity to develop reasoning skills. Additionally, there are no other published studies of nurses' C-scores to make comparisons.

The third objective of this study was to examine similarities and differences in attitudes to euthanasia held by nurses working in different practice areas. Differences were not found in the EIS scores, but nurses working in palliative care environments were less likely to agree with the doctor's actions in the MJT than those working with older adults or in education. These findings concur with those from the limited number of international studies which have examined the significance of clinical speciality. In these published studies, oncology nurses (Musgrave et al., 2001) and palliative care nurses (Kitchener, 1998) have been found to be less supportive of euthanasia than nurses from other clinical specialities. Significant differences were also not found in the nurses' willingness to perform acts of euthanasia. However, the nurses in this survey worked in a variety of clinical and non-clinical settings, and the numbers in each group may have been insufficient to show significant differences.

3.2.6 Limitations of the study

The population from which the sample is drawn is not entirely representative of the general nursing population. As a number of individuals having looked at the questionnaire decided not to participate, there may also be some element of selection bias. As this is a recognised issue with Internet based survey research, the response rates amongst the groups of nurse was closely monitored, and paper

copies of the questionnaire were provide to the group of nurses (those who care for older adults) less likely to be able to readily access the on-line version. There is also a potential threat to the validity of the respondents as anyone could have responded to the survey and as the responses were anonymous, it was impossible to screen the participants. To minimise this, information about the questionnaire was publicised only through nursing discussion lists, lists held by the Royal College of Nursing and known nursing academic and clinical contacts. Furthermore, while postal surveys may target certain individuals to receive the questionnaire, it cannot be guaranteed that the intended participant will complete it.

Taking into consideration that there are more that 600,000 nurses on the Nursing and Midwifery Council register (Nursing and Midwifery Council, 2005) the response rate is low. However, the register lists all nurses eligible for registration irrespective of whether they are currently in employment, and the fact that high response rates are necessary for representativeness in survey research has been challenged (Krosnick, 1999). Citing research carried out by the Pew Research Center, Krosnick contends that substantive conclusions drawn from studies have often remained unchanged by improved response rates. Furthermore, when findings did change, there was no evidence to support the claim that findings were more accurate with the higher response rate than with the lower one (Pew Research Center, 1998).

A further limitation of the study concerns the data analysis. The reliability of an instrument such as the MJT to measure how much the participant's judgment is

determined by moral concerns is controversial and subsequently the findings should be treated with caution. Furthermore, it is recognised that the performance of multiple tests may result in an elevated risk of type I error, therefore significant results should not be over interpreted.

3.3 Summary

This study has revealed three factors that UK nurses consider important in the euthanasia debate. These are a) the nurses' concerns about administering euthanasia; b) patient control and the alleviation of suffering; and c) conditions for administering euthanasia. Overall the participants in this study did not strongly agree or disagree with the practice of euthanasia. The mean scores for the euthanasia ideology scale were in the central 'unsure' category, the nurses were neutral about never in any circumstance administering a lethal dose of medication and slightly disagreed that with the notion of administering a lethal dose of medication if they considered the circumstances were right. Only differences in the palliative care nurses were identified regarding their attitudes to the doctor's intention to administer euthanasia in the MJT. However, as found in previous studies, when religiosity was accounted for, differences were found and those with strong religious beliefs were less willing to administer euthanasia and had lower EIS scores, while those with no religious beliefs were more willing to administer euthanasia and had higher EIS scores.

The problems associated with question phrasing in survey research and in particular participant's interpretation of euthanasia are acknowledged (Ubel & Asch, 1997). Although this study attempted to address this by using the phrase a

lethal dose of medication rather than attempting to define euthanasia, there remains the possibility that the results may be influenced by the way in which the questions were phrased (Hagelin et al., 2004). Furthermore, anonymous surveys do not allow for the reasoning behind the selection of responses to be probed and hence subtle and important nuances may be lost. Consequently, using the same statements that formed parts 1, 2 and 3 of the questionnaire, an alternative approach, Q methodology, was used in Study 3 to further investigate nurses' attitudes to euthanasia.

Chapter 4: Nurses' attitudes to euthanasia: A Q methodological study

4.0 Introduction

Study 2 of this thesis used an Internet based questionnaire developed from data collected from the focus groups in Study 1 to survey UK nurses attitudes to euthanasia. The results from Study 2 revealed three factors that registered nurses considered important to the euthanasia debate. These were named as a) nurses' concerns about administering euthanasia; b) patient control and the alleviation of suffering; and c) conditions for administering euthanasia. Overall the participants in this study did not strongly agree or disagree with the practice of euthanasia but difficulties in question phrasing in survey research in this area might have influenced the findings (Hagelin et al., 2004). Moreover, the reasoning behind the selection of questionnaire responses in surveys cannot be explored which is of particular importance when investigating complex ethical subjects such as attitudes to euthanasia. Therefore, Study 3 of this thesis used Q methodology as an alternative approach to further investigate nurses' attitudes to euthanasia.

4.1 Principles of Q methodology

Developed by William Stephenson (Stephenson, 1953), Q methodology evolved from factor analytic theory and is a means of extracting subjectivity. It is often used to explore highly complex and socially contested concepts and subjects from the participant's point of view (Watts & Stenner, 2005). Q methodology is based on two premises; firstly that subjective points of view are communicable and secondly that they are advanced from a position of self reference (McKeown

& Thomas, 1988). Q methodology therefore, has subjectivity as its central focus and allows the views and perspectives of individuals on a given subject to be examined from the internal standpoint of the individuals themselves. The term 'Q' is used to distinguish the methodology from 'R' methodology which is more commonly used in attitudinal research. Scales and questionnaires are used in R methodology to measure attitudes, but the items the researcher who develops the questionnaire chooses to include define the attitudes. The respondent can only respond within the confines of the scale or questionnaire. The aim of Q methodology is to uncover the participant's own understanding and definitions rather than measuring the participant's understanding of an operational definition imposed upon them by the researcher (Kitzinger, 1999).

Stephenson (1953) proposed that instead of applying tests to a sample of people (as in R methodology), the people should be applied to a sample of statements and subsequently the participants correlated and factored (Stainton Rogers, 1995). The Q sort is used to collect data in Q methodology. Participants are given a series of statements on a given subject to sort in rank order from agree to disagree. The focus of Q methodology is the participant's subjective response to the statements and the exploration of the differing accounts constructed by them. Whereas R methodology involves the correlation and factoring of traits, Q methodology is concerned with correlating and factoring persons.

As well as a method of investigation in psychology, Q methodology has also been applied in other disciplines, for instance, political and behavioural science. In healthcare research, Q methodology has been used to explore a range of

subjects such as physicians' attitudes to HIV/AIDS (Prasad, 2001), end of life care decision making by physicians (Wong, Eiser, Mrtek, & Heckerling, 2004), to examine the barriers associated with research knowledge transfer amongst primary care nurses (Thompson, McCaughan, Cullum, Sheldon, & Raynor, 2005), the knowledge of symptom clusters among adults at risk of myocardial infarction (Ryan & Zerwic, 2004) and in the understanding of pain (Eccleston, Williams, & Stainton Rogers, 1997). As the aim of Q methodology is not objective measurement, it is appropriate to research controversial subjects, such as attitudes to euthanasia where individual perspectives are important.

A Q methodological study involves the following stages:

- Definition of the concourse
- Development of the Q sample
- Selection of the P set
- Performing the Q sort
- Analysis and interpretation

4.1.1 Definition of the concourse

The concourse is defined by Brown (Brown, 1993, p2) as "*the flow of communicability surrounding any given topic*" and is therefore, an extensive collection of beliefs about the subject to be investigated. Although objects, photographs or pictures can form the concourse, written statements are most commonly used. The concourse will therefore, encompass a wide range of beliefs about the subject and these may be obtained from a number of sources such as participant observation, formal interviews, informal discussions, academic literature, magazines or the media. McKeown and Thomas (1988)

distinguish between naturalistic samples and ready-made samples. Naturalistic samples are usually collected from interviews (Kitzinger, 1987), or some form of written communication such as statements sampled from student essays (Brown, 1977). Ready made samples are obtained from sources other than respondents such as borrowed from standardised scales or from interviews for a different study (Ryan & Zerwic, 2004). The concourse is typically two or three times the size of the final Q set (Stainton Rogers, 1995).

4.1.2 Development of the Q set

To develop the Q set, statements identified in the concourse are examined and a sample selected (the Q sample) to represent the concourse. There are two main techniques for selecting items for the Q sample, unstructured sampling and structured sampling. Structured sampling techniques may be deductive, based on a priori theoretical frameworks, or inductive and constructed from the statements as they are collected. The statements are therefore, categorised as being either theory driven or data driven. Alternatively, an unstructured sampling technique can be employed where the statements are chosen with the aim of providing a reasonable accurate survey of the belief statements but without ensuring that any sub-categories are represented (McKeown & Thomas, 1988). Whatever method is adopted, the Q sample should represent the concourse as in Q methodology the statements form the representative sample of the population not the participants who carry out the Q sort.

The statements in the Q sample cannot be factual but must be statements of belief that participants can agree or disagree with and similar to the process used to

develop questionnaires, some statements may need to be reworded to ensure clarity. While the exact size of the Q sample will vary dependent on the subject under investigation, the sample must be sufficient in number to represent the concourse, but small enough to be manageable for the participants to sort. Generally, a sample of between 40 and 80 statements is considered to be adequate (Stainton Rogers, 1995). Once the final sample has been selected, each statement is written onto a piece of card and this set of cards forms the Q set.

4.1.3 Selection of the P set

The P set refers to the group of participants in the study. The P set is not a randomly selected group of participants, but is a structured set of respondents who are expected to have an opinion on the subject being investigated. By allowing participants to express subjective beliefs, Q methodology aims to discover different patterns of thought and how or why people hold the beliefs they do rather than how many hold certain or specific beliefs. Q methodological studies therefore, explain the main beliefs selected by groups of participants and large numbers are not required. The size of the P set is related to the number of factors yielded and how individual sorts load onto them and no more than five people are needed to clarify a particular view (Bryant, 2003). Between 40 and 60 participants is usually sufficient (Stainton Rogers, 1995). As indicated by Watts and Stenner (2005), large numbers of participants can be problematic as they can "*negate many of the subtle nuances, complexities and hence many of the essential qualities contained in the data*" (Watts & Stenner, 2005, p79).

A process of strategic sampling may be adopted and participants selected as they are expected to have a particular viewpoint. A study exploring attitudes to

euthanasia for example, may seek to include members of pro-life groups as well as members of the Voluntary Euthanasia Society.

4.1.4 Q sorting

Participants are given the Q set, a set of numbered cards with one statement from the Q sample written on each card. Participants are asked to read the statements and then rank them according to conditions of the research project. The most usual condition requires the participant to sort the statements onto a grid constructed as a quasi-normal distribution with an agree/disagree continuum (see figure 4.1). Statements of no difference are placed in the middle (zero) position which is a point neutral in meaning. This is known as forced distribution as the grid dictates the number of statements than can be placed under each point of the scale. The size of the grid is determined by the number of statements but usually scales of +4 to –4 or +5 to –5 are used (Brown, 1980).

Figure 4.1 Forced distribution grid

Strongly disagree				Neutral				Strongly agree
-4	-3	-2	-1	0	+1	+2	+3	+4

Alternatively a free sort distribution may be used. Using this method, the numbers of cards that can be placed under each point of the scale is not predetermined and participants are free to place as many cards under each point as they wish. While there is debate over which method of distribution is the most appropriate, neither the reliability of the technique nor the quality of the data are affected by the distribution method (Brown, 1971).

Although the scale and the number of statements are predetermined, the participant determines the meaning of the continuum, the contextual significance of each statement and where each is placed on the grid. Q sorting is therefore, considered to be an ipsative technique, that this, one where the participant makes judgments from their own frame of reference.

Q sorts can be administered individually in a face-to-face setting, sent to participants to complete in their own time or be computer based. While studies have shown there to be no apparent difference in the reliability nor validity of the methods of administration, giving participants Q sorts individually allows the participants to talk about the placing of items which assists the researcher in understanding the results. Once the participants have placed all the cards on the grid, the statement numbers are transcribed onto a data collection grid. Participants may also be interviewed following the sorting procedure, or encouraged to provide written information either about the statements themselves, or the placing of the statements. Some biographical information is usually also collected.

4.1.5 Analysis and interpretation of the data

Data is analysed in Q methodology using by-person correlation and factor analysis not by correlation and factor analysis of the items. There are dedicated Q methodological software packages available such as *PCQ for Windows* and *PQ Method* both of which automatically generate by-person correlation matrixes and perform by-person factor analysis. The first stage is the calculation of a correlation matrix of the Q sorts of all participants which represents the degree of similarity between the sorts. Correlations are calculated using the following formula $r = 1 - (\sum \text{diff}^2 / \sum \text{indiv}^2)$ where 'diff' represents the difference between the rank score given to each statements between two participants and 'indiv' represents the rank score given by each individual. The correlation matrix is therefore, derived by repeat calculations for each participant compared with every other participant. Correlations range from –1 to 1 with a negative correlation showing that the participants ranked the statements in opposite order (Baker, Thompson, & Mannion, 2006).

The second stage of analysis is the use of factor analysis, a method of reducing a correlation matrix containing many variables into a smaller number of factors which are more easily interpreted. Q methodology employs by-person factor analysis which focuses on the participants with the aim of identifying the number of groupings of Q sorts that are either similar or dissimilar to each other. Participants who share similar views will share the same factor, and a factor loading is determined for each Q sort showing the extent to which each Q sort is associated with each factor. The main methods used in Q methodology are centroid analysis and principal components analysis (PCA). Centroid analysis

was Stephenson's method of choice, and while there is debate about which method is best, both are currently used in Q methodological studies, and are considered to produce similar results (Brown, 1980).

There is also debate over which factor rotation technique should be used in Q methodology. Objective techniques such as varimax are criticised by some Q researchers in that this reveals the most statistically (rather than theoretically) informative solution. Stephenson's preference was for by-hand or judgemental rotation, but varimax rotation with PCA is most commonly used in modern Q methodological studies (Watts & Stenner, 2005). Varimax rotation is a method of orthogonal rotation (meaning the factors are independent and at 90° to each other), which maximises the amount of variance explained by the extracted factors.

The aim of factor rotation is to create a factor array, a model Q sort for each factor with scores ranging for example, from +4 to –4, depending upon the scale used in the grid. Only those Q sorts that significantly load on a given factor are designated as defining variables. The factor arrays are then subject to interpretation.

The interpretive phase of the data analysis produces summary accounts of the beliefs expressed by each factor. This is carried out by reference to the positioning and configuration of the items in the factor arrays and unlike conventional factor analysis, comparisons are made between the factor scores and the Q sort items. Comparisons are made of the statement scores across

participants with similar beliefs particularly the statements that distinguish between factors, those placed at the extremes of the continuum and neutral statements (Watts & Stenner, 2005).

4.2 Strengths and criticisms of Q methodology

Despite dating from the 1950s, Q methodology is not always readily acknowledged in mainstream psychology, and while the mixed methodological approach outlined above is considered a strength, it can be regarded sceptically by quantitative and qualitative researchers who find its hybridity unconvincing (Stenner & Stainton Rogers, 2004). Having to continually justify the use of Q methodology to the psychology community rather than discuss her research findings led Kitzinger (1999) to abandon Q as a research methodology altogether, and similar difficulties in introducing a new methodology in geography (Eden, Donaldson, & Walker, 2005) and health economics (Baker et al., 2006) have been described in the literature. The time taken to learn a new technique in a discipline where Q methodology is not commonly used is also cited as a criticism in the field of medicine (Baker et al., 2006; Chinnis, Paulson, & Davis, 2001).

Q methodology has been criticised for the non-random selection of small numbers of participants and for failing to demonstrate content validity of Q sorts. Further criticisms are made in terms of the way that Q methodology uses factor analysis. Kitzinger (1999) argues that these and other criticisms are based on judging Q methodology by criteria appropriate only for R methodological

research. As the basis of R methodology differs from that of Q, such criticisms are erroneous.

Q methodology investigates subjectivity and is therefore, particularly suited to research socially contested concepts and subjects such as attitudes to euthanasia and other ethical issues. The methodology enables identification and interpretation of different opinions and beliefs about a subject not usually possible using traditional survey techniques (Chinnis et al., 2001). In emphasising the importance of subjectivity, Q methodology has some features in common with qualitative methodology, however, statistical analysis is used to identify the themes and categories that emerge from the data. Kitzinger (1999) argues that the methodology has advantages over both quantitative and qualitative approaches as by allowing participants to use the statements to construct their own accounts of subjectivity, researcher bias is reduced. There are no a priori theories or hypotheses to test, and difficulties in articulating the analysis of rich and complex data obtained in qualitative methodologies is avoided (Baker et al., 2006). Q methodology has therefore, been described as combining the strengths of both quantitative and qualitative traditions, and as providing a bridge between quantitative and qualitative methodologies (Brown, 1996).

4.3 Nurses attitudes to euthanasia: a Q methodological study

4.3.1 Objectives

The study had two objectives:

- To explore diversity in nurses' subjective understanding of voluntary active euthanasia.
- To investigate similarities and differences in these understandings in nurses with different clinical experiences.

4.3.2 Method

4.3.2.1 Definition of the concourse of attitudes to euthanasia

The concourse for this study was attitudes, and specifically nurses' attitudes to active voluntary euthanasia (VAE). Information was initially collected from the focus groups carried out with groups of intensive care unit (ICU), hospice and nursing home nurses described in Chapter 2. Following examination of the concourse, as recommended by Watts and Stenner (2005), additional statements were collected from academic and popular literature and from pro-life and pro-euthanasia websites to ensure representation of a broad range of views. In total 120 statements were collected.

4.3.2.2 Development of the Q set

Using an inductive data driven technique, the statements were categorised into four main themes:

- statements concerning the patient,
- statements concerning relatives and friends,
- statements concerning the nurse,

- statements concerning society in general.

The statements in each theme were then examined and further sub-themes emerged. In the statements concerning the patient these were identified as control, suffering, and decision making; in the statements concerning relatives and friends, suffering, influence and decision making; and in the statements concerning the nurse, influence, protocols, decision making, suffering, responsibility and beliefs emerged as sub-themes. The statements concerning society in general were categorised as either positive or negative towards voluntary active euthanasia. The statements concerning the patient, relatives and friends and the nurse were examined again and categorized as either demonstrating a positive or a negative attitude to euthanasia.

For statistical stability it is recommended that Q sets should contain no fewer than 40 items (Kerlinger, 1986), and out of 120 statements identified in the concourse, fifty were selected to form the Q sample. A researcher familiar with Q methodology assisted in the wording and selection of the statements to ensure that the Q sample broadly represented the concourse, and also the emergent themes and sub-themes. To pilot the Q sample, six individuals were given the statements to sort, and further amendments to the wording were made as a result. The final Q set can be seen in Appendix 4.1.

4.3.2.3 Selection of the P set

The aim of recruitment in a Q study is to access a diverse range of views and opinions. Stainton Rogers (1995) recommends that this can be effectively

achieved when the participant group contains between 40 and 60 individuals but some consideration must also be given to the constitution of the P set. Some studies strategically sample participants to include a range of beliefs and in some circumstances individuals may be approached because their beliefs on a given subject are known. However, where studies investigate particular concepts such as euthanasia, the participants may not clearly divide along prescribed demographic characteristics. It is not necessarily the case that nurses working in ICUs would hold more positive or negative views towards VAE than nurses working in hospices or nursing homes, therefore, in this study strategic sampling was not attempted. '*The whole point of Q methodology is to allow individuals to categorize themselves on the basis of the item configuration they produce*' (Watts & Stenner, 2005, p80). As this study was exploratory, an opportunistic sampling technique was used.

The researcher met with the Professional Development Nurses in the ICUs, the Care Managers of the nursing homes and the hospices to explain about the study and dates arranged for the Q sorting exercise to take place. These senior nurses then sent the project information sheets to eligible members of staff and appointments were arranged for those who volunteered to participate. Sixty nurses in total were recruited from two ICUs (n = 20), two hospices (n = 20) and two nursing homes (n = 20) in West Yorkshire. Nurses were selected from these clinical areas as they are areas of practice where nurses frequently face ethical dilemmas in caring for dying patients. Of the 60 participants, 45 were female and 15 male, and their ages ranged from 21 to 58 years ($\bar{X}$ = 41.00, SD = 9.52). Eleven participants had strong religious beliefs, 25 moderate religious beliefs and

24 described themselves as having no religious beliefs. Of the eleven participants with strong religious beliefs, 4 described their religious group as Christian, two as Church of England, one as Pentecostal, three as Roman Catholic and one as Hindu. All participants were registered nurses and while 19 did not declare any further qualifications, the majority of the participants were educated to Diploma or Degree level and two participants had completed Masters Degrees. The biographical details of all participants are included in Appendix 4.2.

4.3.2.4 Ethical considerations

The study was carried out within the guidelines of the NHS Research Governance Framework, and ethical approval was sought and obtained from Leeds Western Research Ethics Committee. Before participating in the study all respondents were given an information sheet about the research, and all those who participated gave written consent. No participants withdrew from the study. All data were collected anonymously, and appointments where individuals were named were listed on separate sheets of paper and destroyed once data collection was complete. While acknowledging the subject matter was sensitive in nature, no special measures were taken to debrief participants as they were all registered nurses familiar with caring for dying patients and their relatives and friends.

4.3.2.5 Materials for the Q sort

The following materials were used in the administration of the Q sorts:

- Information sheet
- Consent form
- The Q set: 50 statements printed onto card (6cm x 4cm)

- The Q grid: a quasi normal distribution grid of fifty cells (6cm x 4xm) printed onto an A3 sheet of paper.
- A booklet consisting of:
    - A copy of the Q grid for participants to transcribe their Q sort
    - The 50 statements in the Q set with spaces for participants to make written comments
    - Biographical information
- Three pieces of A4 paper printed with three boxes (6cm x 4cm)
    - Agree, neutral and disagree
    - Strongly agree, quite strongly agree and slightly agree
    - Strongly disagree, quite strongly disagree and slightly agree

4.3.3 Procedure for Q Sorting

All the Q sorts were completed in face-to-face sessions with the participant in their workplace. Data may have been collected by sending participants the materials in the post with a pre-paid envelope for return, and as discussed above, data collected using either method yields similar results. However, Q methodology is not commonly used in nursing research, and therefore, it was unlikely that participants would be familiar with the method. Furthermore, the instructions for carrying out Q sorts appear complicated in the written format and these factors can influence the response rate when conducting Q sorts by post (Cross, 2005; Prasad, 2001). Using the face-to-face method meant that participants were able to be given the instructions verbally and had the opportunity to ask questions if they were unsure of what was expected of them. It

also gave the opportunity to ensure that the biographical information was complete and therefore, minimised the possibility of data being incomplete.

Written consent was obtained from the participants, and they were reminded that the data would be collected anonymously. Following Brown (1980) and Bryant (2003), the following institutions were given on how to complete the Q sort:

1. Read through all the statements on the card and using the sheet with the agree, neutral and disagree boxes, place each card in the box which most closely represents your view. Place statements which you agree with in the agree box and those you disagree with in the disagree box. If you have no particular view about a statement, place it in the neutral box.
2. Next take the statements from the agree box, and using the sheet with the strongly agree, quite strongly agree and slightly agree boxes, read each statement again and place it in the box which most closely represents the strength of your agreement with the statement.
3. Next take the statements from the strongly agree box and select the three statements you most strongly agree with and place them on the grid in the column labelled +4. Place any remaining statements from the strongly agree box in the +3 column and then the +2 column and so on. When all the strongly agree statements have been placed on the grid, take the statements from the quite strongly agree box and place these on the grid after the strongly agree statements and then do the same with those from the slightly agree box filling all the columns to the bottom of +1. If you have any statements left over, place them in the neutral box.

4. Next take the statements in the disagree box and using the sheet with the strongly disagree, quite strongly disagree and slightly disagree boxes, read each statement again and place it in the box which most closely represents the strength of your disagreement with the statement.
5. In a similar way to how you placed the statements you agreed with on the grid, take the strongly disagree statements and select the three you most strongly disagree with and place them on the grid in the column labelled -4. Continue to place the remaining statements in the strongly agree box, quite strongly agree box and slightly disagree box on the grid working through the –3, -2 and –1 columns. Place any left over statements in the neutral box.
6. Finally take all the statements in the neutral box, the statements you placed here originally and any you have left over from the agree and disagree sides of the grid. If you have any spaces in the agree (+4 to +1) columns or in the disagree columns (4 to –1) read through the neutral statements again and identify any that you slightly agree or disagree with more than the others and then use these statements to fill any remaining spaces in the (+) or (-) columns.
7. You will now be left with eight statements about which you feel most neutral about and these should be placed in the column labelled 0.
8. Take some time to look at the grid and make sure that the statements are in the correct columns to represent your views, and when you are satisfied with this, transcribe your sort onto the grid in the booklet by copying the number assigned to each statement into the corresponding column.

9. If you would like to make any comments about any of the statements, write these in the space alongside each statement in the booklet. You can write as much or as little as you choose.
10. Finally, complete the page biographical information on the last page of the booklet.

4.3.4 Data Analysis

Data from the Q sorts was entered into PQ Method (version 2.11), a Q dedicated software package which computes intercorrelations among Q sorts, factor analyses them using either centroid or principal components analysis and allows the factors to be rotated using varimax. Once the factors have been selected, entries that define the factors are flagged and reports on factor loadings, statement factor scores, discriminating statements for each factor and consensus statements across factors are produced (Schmolck & Atkinson, 2002).

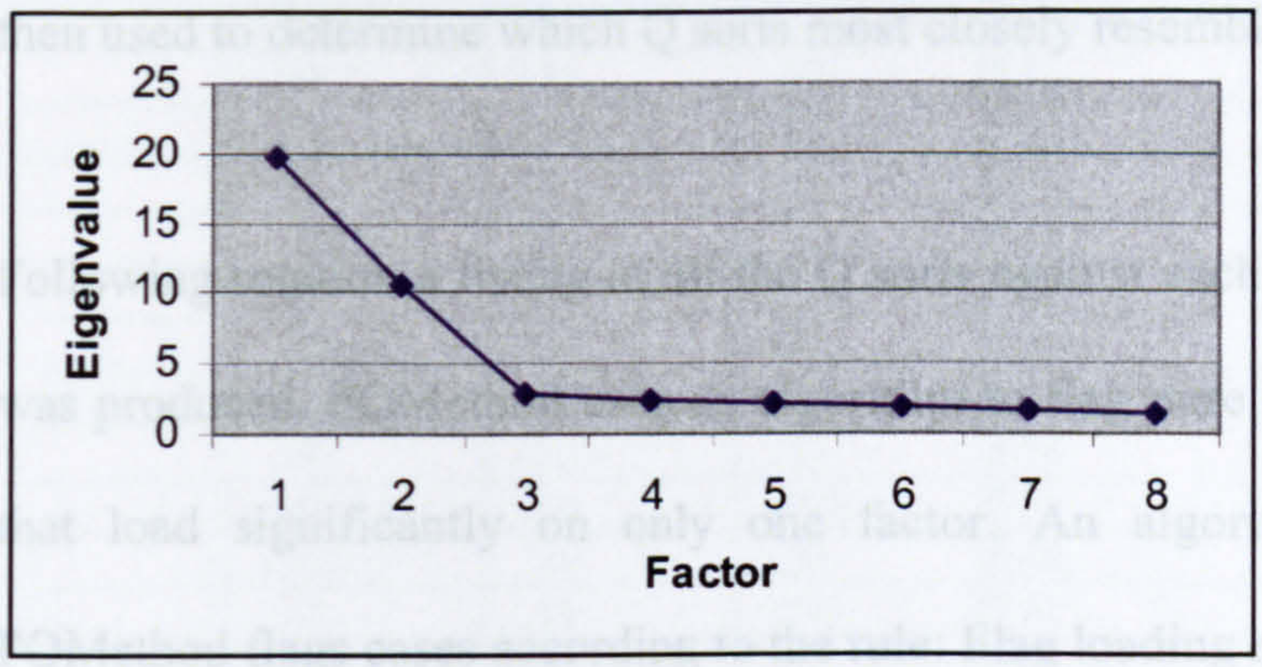
4.3.5 Results

The 60 completed Q sorts were analysed using the principal component method. A correlation matrix for all pairs of Q sorts was produced. In Q methodology little attention is usually given to this as the matrix is usually too large for direct examination and therefore, only considered to be a transition phase between the raw data and the factor analysis (Brown, 1980). Factor analysis of the correlations matrix was then performed to identify the Q sorts that appear to group together and therefore, identify the factors summarizing the correlations.

The factors were then examined to decide which should be retained for rotation. Several methods can be used to assess the number of factors to be extracted, and the eigenvalues which represent variance are most commonly used in R methodology. Because the variance that each variable (Q sort) contributes to a principal components extraction is 1, only those factors with an eigenvalue of more than 1 should be retained, but use of this method alone may result in too many factors being retained (Tabachnick & Fidell, 2001). Alternatively, the scree test (Cattell, 1966) can be use where eigenvalues are plotted on a line graph. The eigenvalue is highest for the first factor and decreases through the factors with smaller eigenvalues. Factors which fall to the right of the point where the line flattens out are disregarded, and only those to the left of this point are retained. The scree test is also not exact, and too few factors may be retained using this method. In Q methodology, decisions about which factors should be retained should not be determined only by statistical criteria and the contextual significance of factors within the study should also be taken into consideration (McKeown & Thomas, 1988).

PQMethod computes eight factors and in this study, all eight factors had eigenvalues of one or more (ranging from 19.75 to 1.53). A scree plot was created, and this indicated three factors to the left of the point where the line flattens out (see Figure 4.2).

Figure 4.2. Scree plot of factor eigenvalues



Brown (1980) suggests that if it looks if there is a possible three or four-factor solution, both can be examined to see which seem to account best for the results. The percentage of explained variance, the number of participants who loaded on the factors and the contextual significance of the factor arrays were considered for two, three, four and five-factor solutions. The five-factor solution was disregarded as only one participant loaded significantly on one factor and it is recommended that a factor should have at least two significantly loaded sorts to be included (Watts & Stenner, 2005). The four-factor solution was disregarded as the factors appeared similar and did not explain any additional understanding of euthanasia, and the two-factor solution was considered to be too limiting as it masked the third understanding of euthanasia evident in the three-factor solution. Therefore, the three-factor solution accounting for 55% of the total variance was selected for further analysis. This solution was the most appropriate fit using the scree plot and had more than two participants loaded significantly on each factor (factor 1, 17 defining sorts, factor 2, 20 defining sorts and factor 3, 11 defining sorts). Examination of the factor arrays of each of the three factors also demonstrated differing beliefs and therefore, allowed the most appropriate

interpretation of the nurses' understandings of euthanasia. Varimax rotation was then used to determine which Q sorts most closely resembled the factors.

Following rotation a listing of all the Q sorts against each of the retained factors was produced. PQMethod uses an algorithm to flag pure cases, that is, the sorts that load significantly on only one factor. An algorithm generated within PQMethod flags cases according to the rule: Flag loading *a*

if $a^2 > h^2/2$ (the proportion of a sort's variance explained by the factors)

and $a > 1.96/\sqrt{}$nitems (loading significant at $p<0.05$)

(Schmolck & Atkinson, 2002).

The significantly loading Q sorts are named factor exemplars as they exemplify the shared item pattern that characterises that factor. This does not mean that the participants all sorted the statements identically, but that the participants' sorts that load on one factor are substantially similar. Table 4.1 shows the loadings of each Q sort against the three rotated factors with 'x' marking exemplar cases. One statement, (31) *"I would need to have a right to refuse to administer euthanasia without any comeback"* was identified as a consensus item in that it did not discriminate between factors. This is not surprising, as irrespective of whether the nurses either agreed or disagreed with euthanasia, it is unlikely that any participant would disagree with this statement.

Table 4.1. Q sort loading by factor (x marking exemplar cases)

Q sort	Factor 1	Factor 2	Factor 3	Q sort	Factor 1	Factor 2	Factor 3
1	.44	-.32	.49	31	.42	.62x	.18
2	.50	-.18	.52	32	.48	.42	.31
3	.56	-.38	.62	33	.12	.74x	-.06
4	.79x	-.09	.18	34	-.25	.70x	.09
5	.59	-.42	.47	35	.57x	-.10	.50
6	.75x	.32	.00	36	.59x	-.28	.40
7	.69x	-.04	.17	37	-.44	-.49x	-.03
8	.54	-.22	.55	38	.45	-.01	.67x
9	.40	-.04	.60x	39	.54	-.23	.55
10	.40x	.03	.30	40	.04	-.31	.61x
11	.13	.12	.76x	41	.02	.09	.33x
12	.59x	-.04	.31	42	.66x	.30	.23
13	.40	-.23	.70x	43	.03	.50x	.47
14	.37	.62x	.25	44	.58x	.27	.31
15	.51x	-.05	.51	45	.52	-.27	.64x
16	.42	.36	.34	46	-.43	.73x	-.08
17	.32	-.28	.56x	47	-53x	.17	.36
18	.62x	.17	.25	48	-.27	.77x	-.21
19	.28	.78x	.10	49	.13	.76x	-.05
20	.77x	.04	.22	50	-.05	.47	.56
21	.66x	-.42	.35	51	.13	.04	.73x
22	.58x	-.17	.53	52	-.05	.76x	-.12
23	.03	.66x	-.01	53	-.27	.52x	-.19
24	.51x	.07	.44	54	-.39	.66x	-.02
25	.18	.61x	.12	55	-.38	.71x	-.32
26	.18	.62x	.01	56	.46	-.45	.27
27	.67x	.06	.31	67	-.18	.56x	-.01
28	.53	-.43	.42	58	-.10	.65x	-.19
29	.12	.34	.60x	59	.35	-.45	.50
30	.06	.64x	-.15	60	.35	.09	.55x

4.3.5.1 Interpretation of the results

The aim of interpretation in is to determine the beliefs that are held in common by participants whose Q sorts load on a given factor (Snelling, 1999) and in Q methodology the factor scores (rather than the factor loadings) associated with each factor are compared with the Q sort statements. Factor arrays, a type of model Q sort, with scores ranging from –4 to +4 were created for each factor according to how the statements were positioned on the grid. Table 4.2 shows the factor array for each of the three factors identified.

To assist interpretation, each factor array was constructed by placing the cards on the Q grid used for data collection. The meaning of factors 1, 2 and 3 could be therefore, be determined by examining where the participants placed the statements on the grid. Those placed in the extreme positions (-4, -3, +3, +4) were particularly noted as clearly these were the statements that participants felt most strongly about, but also statements placed in the neutral column were examined to discover the understandings of euthanasia determined by each factor (Kitzinger, 1999). Qualitative comments written in the booklets by participants who loaded significantly on each factor also assisted with interpretation of the individual ranking of statements.

Table 4.2. Item scores for each statement by factor

No	Statement	Factors		
		1	2	3
1	The patient would be in control if euthanasia was carried out	0	-3	+1
2	If euthanasia was carried out, the patient could plan their death	0	0	+3
3	Euthanasia would prevent distress for the patient	0	-3	+1
4	Euthanasia would ensure a quick death	0	0	+2
5	Euthanasia should be an option for patients with distressing symptoms	0	-2	+1
6	If someone requested euthanasia, you wouldn't know if the patient was making the decision or if someone else was influencing them	+1	+2	-1
7	If euthanasia was an option, patients might be worried about dying before their time	+1	+1	0
8	It would be better if the patient self administered the drugs rather than any health professional administer euthanasia	0	-1	-1
9	Euthanasia doesn't allow nature to take its course	-3	+1	+1
10	People should not be forced to stay alive if they do not want to	+1	-1	+1
11	Euthanasia allows patients to make choices about their death	+2	0	+3
12	Euthanasia should be allowed for mental suffering as it is as bad as physical suffering	+1	-2	-1
13	Euthanasia should be an option for those with a poor quality of life	-1	-3	0
14	Euthanasia should only be an option for those mentally competent	+3	-1	+2
15	Euthanasia would prevent distress for the relatives	-2	-4	-3
16	Euthanasia could be abused by the family for financial gain	0	+2	0
17	Patients might ask for euthanasia for the wrong reasons such as feeling they are a burden to their families	+3	+3	+2
18	If euthanasia was an option, there would not have to be conflict between the multidisciplinary team and the relatives	-2	-1	+3
19	If the patient wanted euthanasia the family would need to be in agreement	-3	0	0
20	There should be an opportunity to involve the family in decisions about euthanasia	+2	0	+3
21	It would be difficult for the nurse to be sure that euthanasia was what the patient really wanted	+2	+1	-2
22	Euthanasia would reduce public confidence in nurses	-1	+2	0
23	Euthanasia is too big a responsibility for a nurse	0	+3	+2
24	A nurse carrying out euthanasia might feel guilty because they had directly caused the patient's death	+1	+3	0

No	Statement	Factors		
		1	2	3
25	It would be important to have strict guidelines to follow for administering euthanasia	+4	+3	+4
26	I would be worried about finding it difficult to apply the guidelines for administering euthanasia	+2	+1	-2
27	It would be easier to administer euthanasia if you knew the patient and their relatives	-1	-3	-1
28	Euthanasia should only be carried out if the patient was suffering and there was nothing else that could be done	+3	-2	+4
29	If asked to administer euthanasia, I would need to be convinced that it was what the patient wanted	+4	0	+4
30	I would need to be personally involved with the care of the patient if I was to administer euthanasia	+3	-1	0
31	I would need to have a right to refuse to administer euthanasia without any comeback	+4	+4	+3
32	My religious beliefs would stop me carrying out euthanasia	-4	+1	-3
33	I would have a conscientious objection to carrying out euthanasia	-2	+3	-1
34	Euthanasia is in conflict with the nurse's role	-2	+4	-2
35	If I administered euthanasia, I would worry about how others would see me and how this may affect my personal relationships	-1	+1	-4
36	A nurse administering euthanasia might feel relieved that the patient's suffering was at an end	+2	-1	-1
37	If euthanasia was allowed nurses may give poorer standards of care	-4	-2	-4
38	I would never in any circumstances administer euthanasia	-3	+4	-3
39	If I thought the circumstances were right (and it was lawful) I would administer euthanasia	+1	-4	0
40	Euthanasia may be a cost-effective use of health care resources	-2	-3	-1
41	The staff might get used to euthanasia and it might become too easy	-2	0	-2
42	Euthanasia is a humane act	+1	-4	+2
43	Euthanasia is morally wrong	-3	+2	-3
44	Euthanasia is murder	-4	+2	-2
45	If euthanasia was allowed then palliative care services would decline	-3	-1	-4
46	In this country suffering animals are treated more humanely than suffering humans	-1	-2	+1
47	It would be impossible to regulate euthanasia properly	-1	+1	-3
48	Death is not always a bad thing	+3	0	+1
49	Euthanasia is a slippery slope that places all of us in danger	-1	+2	-2
50	Choosing how to die should be a basic human right	+2	-2	+2

4.3.5.2 Factor 1: cautiously supportive of euthanasia

Factor 1 accounted for 20% of the variance explained by the three factors and the Q sorts of 17 participants defined the factor. Ten of the nurses worked in ICUs, four in hospices and three in nursing homes, seven were men and ten were women. Seven had less than 5 years experience in their speciality, six had 6 to 10 years, and four between 11 and 15 years. None of the nurses described themselves as having strong religious beliefs, five had moderate religious beliefs and eleven stated they had no religious beliefs. Four were educated to degree level, eight to diploma level and five stated no additional qualifications beyond RGN (The final column of the table in Appendix 4.2 indicates the participants whose sorts defined factor 1).

The participants whose sorts defined this factor did not disagree with euthanasia, but were concerned about the impact that administering euthanasia may have on them as well as the patients. The nurses strongly agreed that it would be important to have strict guidelines to follow for administering euthanasia (factor score +4), and were not worried about finding it difficult to apply the guidelines (factor score +2). The nurses who defined this factor also strongly agreed with the consensus item (31) that they should have a right to refuse without any comeback. In response to this statement one participant wrote *"Totally"*, and another *"It would be extremely important that the patient could express their views without the influence of others."*

Despite having concerns about guidelines and a right to refuse to participate, the nurses defining this factor disagreed that euthanasia is in conflict with the nurse's

role. They did however, agree that it was important to be directly involved in the care of the patient. (see Table 4.3)

Table 4.3. Factor scores for statements relating to the nurse's role

No	Statement	Factor score
34	Euthanasia is in conflict with the nurse's role	-2
22	Euthanasia would reduce public confidence in nurses	-1
30	I would need to be personally involved with the care of the patient if I was to administer euthanasia	+3

However, statement (23) "Euthanasia is too big a responsibility for a nurse" was placed in the neutral column. The comments in the booklets give some insight into the interpretation of this statement. Participants wrote *"Certainly for a nurse alone"*, *"Needs to be a multidisciplinary team and patient decision"* and *"Surely the nurse would be part of a larger team"*. The statement appears to have been interpreted as the *decision* to carry out euthanasia being big a responsibility, rather than the *act* of carrying out euthanasia being too big a responsibility. Nursing is a team-based activity, and all the nurses who participated in this study would be used to working not only in nursing teams but also as part of wider multidisciplinary teams. Therefore, the suggestion that a nurse might make a decision in isolation would be an unusual notion and may account for the placing of the statement in the neutral column.

The nurses defining this factor strongly disagreed that euthanasia is murder, and that nurses may give poor standards of care if euthanasia was allowed. One participant wrote, *"Wouldn't think it would affect good nursing care"*, and another stated that if euthanasia was allowed they thought it *"Should improve*

care". Unsurprisingly given that none of the nurses in this group expressed strong religious beliefs, they also strongly disagreed with the statement the statement that their religious beliefs would stop them carrying out euthanasia. They also did not consider euthanasia to be morally wrong (factor score –3), nor did they agree that they would have a conscientious objection to carrying out euthanasia (factor score –2).

The factor stores indicated that the nurses were supportive of euthanasia in some circumstances (see Table 4.4).

Table 4.4. Factor scores of statements showing support for euthanasia

No	Statement	Factor score
48	Death is not always a bad thing	+3
28	Euthanasia should only be carried out if the patient was suffering and there was nothing else that could be done	+3
50	Choosing how to die should be a basic human right	+2

The factor scores for the nurses defining this factor indicated that if they thought the circumstances were right (and it was lawful) they would administer euthanasia (factor score +1), however, the comments in the booklets from nurses defining this factor showed some caution. The comments included *"I don't think I could comment on this unless I was emotionally involved in the situation"*, *"I would find it difficult to undertake euthanasia because it is obviously traumatic to induce death. However, I still feel it should be legalised although not all nurses should be compelled to perform it*", and *"Agree in principle, but I don't think I could actually bring myself to take someone's life."* The nurses also

strongly agreed that they would need to be convinced that it was what the patient really wanted before they administered euthanasia (factor score +4).

Amongst the statements concerning the patient, the nurses defining this factor agreed with the statement that euthanasia allows patients to make choices about their death (factor score +2) and that people should be not be forced to stay alive if they do not want to (factor score +1). However, several statements placed in the neutral column related to the suffering and control of the patient. The participant's written comments indicate ambiguity in the meaning of distress and control. In response to statement (1), "The patient would be in control if euthanasia was carried out" participants wrote *"They would need to be mentally aware and how is this assessed"*, *"Dependent on circumstances illness types, support etc, environment i.e. home or hospital"* and *"In ICU patients would often be unconscious or sedated"*, thereby indicating that patients in institutional care nearing the end of life may have little control of their lives in general. In response to statement (3) "Euthanasia would prevent distress for the patient", differences in the interpretation of distress were evident in what the participants wrote *"The fear of death would create distress"*, *"Choosing to die must always be distressing"*, *"Physical not mental"* and *"The act itself may be distressing"*.

In summary, the nurses who defined this factor were more likely to work in ICUs, have less than 10 years experience in the speciality, be educated to at least Diploma level and hold moderate or no religious beliefs. In this understanding of nurses' attitudes, euthanasia was not considered to be morally wrong, defined as murder or something that would raise conscientious objections. Euthanasia was

not felt to be in conflict with the nurse's role, but having strict guidelines to follow, a nurse having a right to refuse, being personally involved with the patient and being sure it was what the patient wanted were important criteria.

4.3.5.3 Factor 2: against euthanasia

Factor 2 accounted for 19% of the variance explained by the three factors and the Q sorts of 20 participants defined the factor. Eleven of the nurses worked in nursing homes, nine in hospices but none in ICUs. Sixteen were women and four were men. Thirteen had less than 5 years experience in their speciality, one had 6 to 10 years, three between 11 and 15 years, two between 16 and 20 years and one more than 20 years. Three of the nurses described themselves as having strong religious beliefs, eight had moderate religious beliefs and three stated they had no religious beliefs. One was educated to Masters level, four to degree level, six to diploma level and nine stated no additional qualifications beyond RGN (The final column of the table in Appendix 4.2 indicates the participants whose sorts defined factor 2).

The nurses who defined this factor strongly disagreed with euthanasia. The nurses strongly agreed with statement (38), "I would never in any circumstances administer euthanasia", and strongly disagreed with statement (39) "If I thought the circumstances were right (and it was lawful) I would administer euthanasia". They strongly agreed that euthanasia is in conflict with the nurse's role illustrated by one participant who wrote "*Our duty is to care not kill*". The participants were also concerned about other factors relating to the nurses role in euthanasia, agreeing that euthanasia is too big a responsibility for a nurse (factor score +3),

would reduce public confidence in nurses (factor score +2) and were worried out other would see them and how it would affect their personal relationships if they administered euthanasia (factor score +1).

The majority of nurses defining this factor had moderate or strong religious beliefs, and they did agree that their religious beliefs would stop them carrying out euthanasia (factor score +1), but ranked other negative statements about euthanasia more highly (see Table 4.5).

Table 4.5. Factor scores for statements relating to the morality of euthanasia

No	Statement	Factor score
33	I would have a conscientious objection to carrying out euthanasia	+3
44	Euthanasia is murder	+2
43	Euthanasia is morally wrong	+2
49	Euthanasia is a slippery slope that places all of us in danger	+2

The nurses disagreed that euthanasia should be an option for patients with distressing symptoms (factor score –2) and that euthanasia would prevent distress for the patient (factor score -3). Given that these participants did not agree with euthanasia, the comments in the booklets helped to understand the scoring for this statement. One participant wrote " "O*r add to distress*", and another "*Death is not an easy option and making this choice may still cause distress*" indicating that rather than alleviating distress, the nurses considered that having to make a decision about it may cause additional distress. They also disagreed with statement (13) that euthanasia should be an option for those with a poor quality of life (factor score –3) and the written comments indicated some ambiguity about the term quality of life. Participants wrote "*Euthanasia shouldn't be an*

excuse" and "*Quality is relative. Is it right for another person to decide whether quality is good*?"

Concerns about external influences on the patient were evident in the sorts of the nurses defining this factor. They strongly disagreed with statement (1) "The patient would be in control if euthanasia was carried out" and these concerns were illustrated by the comments the participants made in the booklets about this statement, "*Patient may be influenced by family or finances*" "*External influence may dictate the decision rather than their own true wishes*" and "Patient *may be influenced by others*". However, the nurses placed three other statements relating to patients having control over their death in the neutral column; (11) "Euthanasia allows patients to make choices about their death", (4) "Euthanasia would ensure a quick death", and (2) "If euthanasia was carried out the patient could plan their death", but no nurses defining this factor provided any additional information to assist with the interpretation of this.

In summary, then nurses defining factor 2 were strongly anti-euthanasia and would not in any circumstances administer it. They worked in nursing homes and hospices and were more likely to have moderate or strong religious beliefs. The majority had less than 10 years experience in their speciality, although six participants had more than 10 years experience. Half of the participants were educated to diploma or degree level and one held a Masters degree, but almost half of this group had no qualifications beyond RGN. This understanding of nurses' attitudes to euthanasia indicated that euthanasia was morally wrong, in conflict with the nurse's role, was too big a responsibility for nurses and would

reduce public confidence in nurses. Rather than being a means to control distress, decisions about euthanasia were felt to potentially add to the patient's distress.

4.3.5.4 Factor 3: supportive of patient autonomy

Factor 3 accounted for 16% of the variance explained by the three factors and the Q sorts of 11 participants defined the factor. Four of the nurses worked in ICUs, three in hospices and a further three in nursing homes. Seven were women and four were men. Three had less than 5 years experience in their speciality, four had 6 to 10 years, two between 11 and 15 years and two between 16 and 20 years. One of the nurses described themselves as having strong religious beliefs, six had moderate religious beliefs and four stated they had no religious beliefs. One was educated to Masters level, four to degree level, four to diploma level and two stated no additional qualifications beyond RGN (The final column of the table in Appendix 4.2 indicates the participants whose sorts defined factor 3).

The nurses whose sorts defined this factor similarly to those defining factor 1 strongly agreed with statement (29) "If asked to administer euthanasia I would need to be convinced that it was what the patient wanted", and that it would be important to have strict guidelines to follow (25). However, they also strongly agreed that euthanasia should be carried out if the patient was suffering and nothing else could be done (factor score +4). These nurses also agreed with other statements relating to patient choice more strongly than those whose sorts defined factor 1 (see Table 4.6).

Table 4.6. Factor scores for statements relating to patient choice

No	Statement	Factor score
2	If euthanasia was carried out the patient could plan their death	+3
11	Euthanasia allows patients to make choices about their death	+3
4	Euthanasia would ensure a quick death	+2

The nurses in this group were more likely to slightly agree with some of the statements placed in the neutral column by the nurses defining factor 1. Statement (1) "The patient would be in control if euthanasia was carried out, (3) "Euthanasia would prevent distress for the patient", and (5) Euthanasia should be an option for patients with distressing symptoms all had factor scores of +1. In response to statement (1), one participant wrote *"More in control"*, but although the nurses agreed with these statements, the written comments indicate similar concerns about the meaning of distress expressed by the nurses defining factor one. In response to statement (3), participants wrote "*May do, not would*" and "*It would still be hard and distressing to make the decision*". For one participant distressing symptoms would need to be "*Very distressing*", with "*all other treatments having failed*", while others commented "*Depends on the symptoms and available relief*" and "*Patient might not want euthanasia if symptoms were controlled*". Symptom control is an important part of palliative care, and therefore, nurses experienced in caring for dying patients would be used to prioritising this aspect of care.

The nurses defining this factor strongly disagreed that if euthanasia was allowed palliative care services would decline or that nurses would give poorer standards of care. They also disagreed with statement (34), "Euthanasia is in conflict with the nurse's role" (factor score –2). While some of the nurses had moderate or

strong religious beliefs, they did not consider that their religious beliefs would stop them administering euthanasia. Participants defining this factor also did not consider euthanasia to be morally wrong, or report that they would have a conscientious objection to carrying it out (see Table 4.7).

Table 4.7. Factor scores for statements relating to the morality of euthanasia

No	Statement	Factor score
32	My religious beliefs would stop me administering euthanasia	-3
33	I would have a conscientious objection to carrying out euthanasia	-1
43	Euthanasia is morally wrong	-3
44	Euthanasia is murder	-2

While disagreeing with statement (38) "I would never in any circumstances administer euthanasia" (factor score -3), the nurses did not agree that if the circumstances were right (and it was lawful), they would administer euthanasia. This statement (39) was placed in the neutral column but no comments to assist interpretation were made against this statement in the booklets of nurses defining this factor.

The nurses defining factor three worked across all three clinical specialities. They were more likely to have less than 10 years experience in the speciality, be educated to at least diploma level and hold moderate religious beliefs. This understanding of euthanasia focused more on the patient experience and the patient being able to plan and make choices about their death were important issues. While euthanasia was not considered to be morally wrong, defined as murder or in conflict with the nurse's role there was some doubt about whether the nurse would administer euthanasia or not.

4.3.6 Discussion

The first objective of this study was to explore the diversity in nurse's subjective understanding of voluntary active euthanasia, and three understandings of nurses' attitudes to euthanasia were demonstrated by the extraction of factors representing differing beliefs. These understandings were labelled as (1) cautiously supportive of euthanasia, (2) against euthanasia, and (3) supportive of patient autonomy. These beliefs differed in their agreement and disagreement with the issues associated with euthanasia, and in their focus on the nurse or patient experience. The beliefs expressed by those cautiously supportive and those against euthanasia are not unexpected as euthanasia is recognised as a contentious moral dilemma in the media as well as in the nursing literature. A moral dilemma is by definition a situation when there are at least two courses of action, but neither are desirable (Fletcher, Holt, Brazier, & Harris, 1995), and the discovery of two understandings one in favour and one against this course of action is therefore, predictable in questions of morality.

There were some similarities in the first (cautiously supportive) and third (supportive of patient autonomy) understandings of euthanasia but both of these were divergent from the second understanding (against euthanasia). The first factor was labelled cautiously supportive of euthanasia, because while the nurses defining this factor disagreed with the statement that they would never administering euthanasia, their support for euthanasia was not unequivocal. This understanding showed some nurses did not view euthanasia as morally wrong or in conflict with the nurses' role. While not expressing a moral, conscientious or religious objection to euthanasia, only slightly agreement with

participation was evident in this perception. Similar findings are evident in other published studies (Kuhse & Singer, 1993; Richardson, 1994), and a recent review of empirical research into nurses' attitudes to euthanasia remarks that "*It is striking that the percentages of nurses willing to co-operate in euthanasia are lower than the percentage of nurses believing that euthanasia is acceptable.*" (Verpoort, Gastmans, De Bal et al., 2004, p358). In this study therefore, even the nurses cautiously supportive of euthanasia demonstrated some reluctance to administer it, and those described as supportive of patient autonomy neither agreed nor disagreed that they would administer euthanasia if it was lawful and they thought the circumstances were right.

The third understanding of euthanasia focused on the patient experience and in particular on patient autonomy. Respect for patient autonomy is a crucial principle in healthcare emphasised by the Nursing and Midwifery Council (NMC) in the Code of Professional Conduct (Nursing and Midwifery Council, 2004), and is the basis for the law governing informed consent. Patients and clients therefore, should expect to be treated as autonomous beings by nurses and have freedom to make decisions about their treatment and care, including decisions about their death. Belief in this principle is evident in the third perception of euthanasia as the nurses agreed with statements describing patient control and choice. While autonomy is clearly an important principle in healthcare, it is not an absolute principle that must be respected at all costs. Moral dilemmas occur in practice when nurses are faced with seemingly rational decisions made by autonomous patients, for example a request for euthanasia,

but the nurse does not agree with the patient's decision. This may explain the strong agreement with the consensus item.

Factor analysis revealed statement (31), "I would need to have right to refuse administer euthanasia without any comeback" to be a consensus item that did not discriminate between factors, and this statement was strongly agreed with by the nurses whose sorts defined each of the factors. In the UK, nurses are obliged to be involved in all aspects of patient care and currently, can only cite a conscientious objection to participation in termination of pregnancy. This is enshrined in law under the terms of the Abortion Act (1967) (Pattinson, 2006), however, the NMC make quite clear that this right to refuse only extends to direct participation in the procedure, and that nurses would be expected to care for women before or following terminations (Dimond, 2006). If changes in the law allowed patients to request euthanasia, it is likely that legislation would contain a similar conscience clause. However, even if such a clause was included, nurses may still not agree to participate.

The second objective of this study was to investigate similarities and differences in the understandings of euthanasia in nurses with different clinical experiences. Because the scores obtained using forced Q sorting are not independent, analysis of variance should not be used but comparisons of characteristics can be made when comparing relationships within the groups (Kerlinger, 1986). In addition, random sampling techniques are not a feature of Q methodology as rather than ensuring the sample is representative of the population, the aim of recruitment is to ensure that a wide range of beliefs is represented. The biographical

information provided by the participants was therefore, considered with some caution as in Q methodology this information should not be used to force participants to "*own their discourse*", but to reveal links between particular factors (Stainton Rogers, 1995).

Differences in understandings of euthanasia were found between nurses from differing clinical areas. Of the seventeen participants whose sorts were labelled as being cautiously supportive of euthanasia, ten worked in ICUs, and no sorts from ICU nurses were exemplars in the factor labelled as being against euthanasia. A further four (out of eleven) ICU nurses had sorts which defined factor 3, supportive of patient autonomy.

The sorts of the hospice nurses showed more variation. Nine (out of twenty) of the sorts exemplified factor 2, against euthanasia, however, four sorts showed cautious support for euthanasia and a further three were in the group defining factor 3, supportive of patient autonomy. The majority of sorts that defined the factor against euthanasia came from nursing home nurses (eleven out of twenty sorts), although three sorts showed cautious support for euthanasia and a further three support for patient autonomy.

Therefore, in this study, the ICU nurses were more likely to be cautiously supportive of euthanasia and of patient autonomy. While the majority of sorts from hospice nurses and nursing home nurses indicated they were against euthanasia, this was not conclusive as the sorts of nurses from these clinical areas

also defined the factors expressing cautious support for euthanasia and patient autonomy.

4.3.7 Limitations of the study

One limitation of this study was the modest number of nurses who participated. Although the number of participants over all fell within the recommendations for a study of this type (Stainton Rogers, 1995), more participants from each clinical area might have enabled more direct comparisons to be made. A further limitation concerns social desirability. Research into attitudes to euthanasia can be restricted by a perceived pressure of social correctness on participants to make responses on controversial issues based on what might be thought of as an acceptable opinion. The presence of the researcher with the participants during the Q sort might have influenced responses in this way. To minimise this, only the minimum of biographical information was collected, and names and places of work (other than to identify the participant as an ICU, hospice or nursing home nurse) were not recorded. Furthermore, once the instructions were given to the participant about how to sort the Q set, the researcher sat some distance away from them while they carried out the sort thereby allowing the participant some degree of confidentiality.

4.4 Summary

Sixty nurses working in ICUs, hospices and nursing homes sorted a Q set consisting of items derived from data collected in Study 1. Three understandings of nurses' attitudes to euthanasia were demonstrated representing differing beliefs. The beliefs differed in their agreement and disagreement with the issues

associated with euthanasia, and in their focus on the nurse or patient experience. In the first understanding named 'cautiously supportive' euthanasia was not considered to be to be morally wrong, defined as murder, raise conscientious objections or be in conflict with the nurse's role. But following strict guidelines, the nurse having a right to refuse to participate, and being personally involved with the patient were important features. In the second understanding, 'against euthanasia' the administration of euthanasia was morally wrong, in conflict with the nurse's role, too big a responsibility for nurses and thought to potentially reduce public confidence in nurses. Rather than being a means to control distress, decisions about euthanasia were felt to add to the patient's distress. The final understanding of euthanasia 'supportive of patient autonomy' focused more on the patient experience. While euthanasia was not considered to be morally wrong, defined as murder or in conflict with the nurse's role there was some doubt about whether the nurse would administer euthanasia or not.

In this Q methodological study, some differences were observed in the nurses who defined each factor based upon their clinical speciality. To investigate this further, the fourth and final study in this thesis applied the Theory of Planned Behaviour, to focus specifically on the influence of clinical speciality on nurses' attitudes to euthanasia.

Chapter 5: Using the theory of planned behaviour to understand nurses' attitudes towards euthanasia

5.0 Introduction

Studies 2 and 3 of this thesis showed some differences in the attitudes of nurses from differing clinical specialities to active voluntary euthanasia, To investigate this issue in more detail, the final study used the theory of planned behaviour, (Ajzen, 1991), to examine the attitudes of registered nurses working in intensive care units, hospices or nursing homes to euthanasia. The same clinical areas were selected as those used in Study 3, the (Q methodological study described in chapter 4) in order to further examine nurses' attitudes to euthanasia using a different methodology. The theory of planned behaviour (TPB) was selected as meta-analytic reviews provide clear support for the predictive power of the model in terms of the percentage of variance explained in behaviour and intentions (Armitage & Conner, 2001).

A questionnaire was formulated consisting of three scenarios each followed by 43 items measuring the components of the TPB. The TPB items were developed from data collected during the focus groups described in Chapter 2. Measures of consistency, a modified version of the Euthanasia Ideology Scale (Adams et al., 1978), and biographical information were also included in the questionnaire.

5.1 The theory of reasoned action and the theory of planned behaviour

Theoretical frameworks in which attitude-behaviour relationships are placed in the context of other causal relationship have been developed by social

psychologists. One prominent theory of this type, the TPB, implies a causal link between beliefs, attitudes and behaviour and is recognised as having been successfully applied with general predictive success to a range of behaviours (Conner & Sparks, 2005). The TPB is a theoretical model that explains the influence of intention upon behaviour. Developed from an earlier theory, the theory of reasoned action (TRA), which suggests that behaviour is influenced by how much a person intends to do something, how much the person is in favour of doing it and how much social pressure they feel to behave in a certain way (Ajzen & Fishbein, 1977). In the TPB, a third construct is added that is, how much control the person feels they have to behave in a certain way. The TPB therefore, can predict specific behaviours by proposing that individuals are likely to follow a course of action if they *"believe that the behaviour will lead to outcomes which they value, if they believe that people whose views they value think they should carry out the behaviour and if they feel they have the necessary resources and opportunities to perform the behaviour"* (Conner & Norman, 1995, p13).

5.1.1 The theory of reasoned action

Fishbein and Ajzen (1975) developed the TRA, to address the problems encountered in studying the relationship between attitudes and behaviours. The theory has two key characteristics (Manstead, 1996):

a. Consistent with the principle of compatibility, strong relationships between attitudes and behaviour will only be discovered where attitudinal and behavioural measures are compatible with respect to the action, object, context and time components of behaviour.

b. Attitude is understood as only one determinant of behaviour.

The factor that directly determines behaviour in the model is behavioural intention, that is how the individual intends to act. Intention is determined by the individual's attitudes to the behaviour and by the individual's subjective norm. The attitude towards the behaviour is the extent to which the person views the action as good or bad, for example whether a nurse would describe active euthanasia as morally right or wrong. The subjective norm refers to the perceived social pressure on the person to perform the behaviour, for example how likely it would be that people important to the nurse would respond to her or him participating in acts of active euthanasia.

The determinants of attitudes are behavioural beliefs and outcome evaluations. Behavioural beliefs are beliefs about the consequences of performing the behaviour, for example beliefs about whether carrying active euthanasia would end a person' suffering, or allow a pain free death. Outcome evaluations are the individual's evaluation of the consequences, that is the way in which a nurse would evaluate the consequences of an act of euthanasia as good or bad in the context of relieving suffering or allowing a pain free death. In the model each behavioural belief is multiplied by the corresponding outcome evaluation and the products summed (Conner & Sparks, 2005).

The determinants of subjective norms are normative beliefs and motivation to comply. Subjective norms are the individual's beliefs about how salient referents (significant others) would expect them to behave. For example, how likely it

would be that other members of the multidisciplinary team would want the nurse to carry out active euthanasia. Motivations to comply are the individual's desire to conform to the expectations of others for example evaluating how much a nurse would want to do what other members of the multidisciplinary team thought they should. In the model, the likelihood that salient referents think the individual should or should not perform the action are multiplied by the motivation to comply. The products are then summed (Conner & Sparks, 2005).

The TRA explains those behaviours under volitional control, that is behaviours performed if the person chooses to perform them or not performed if they choose not to do so. Habitual behaviours and those that require particular skills, resources or the co-operation of others are therefore, excluded from the model.

5.1.2 The theory of planned behaviour

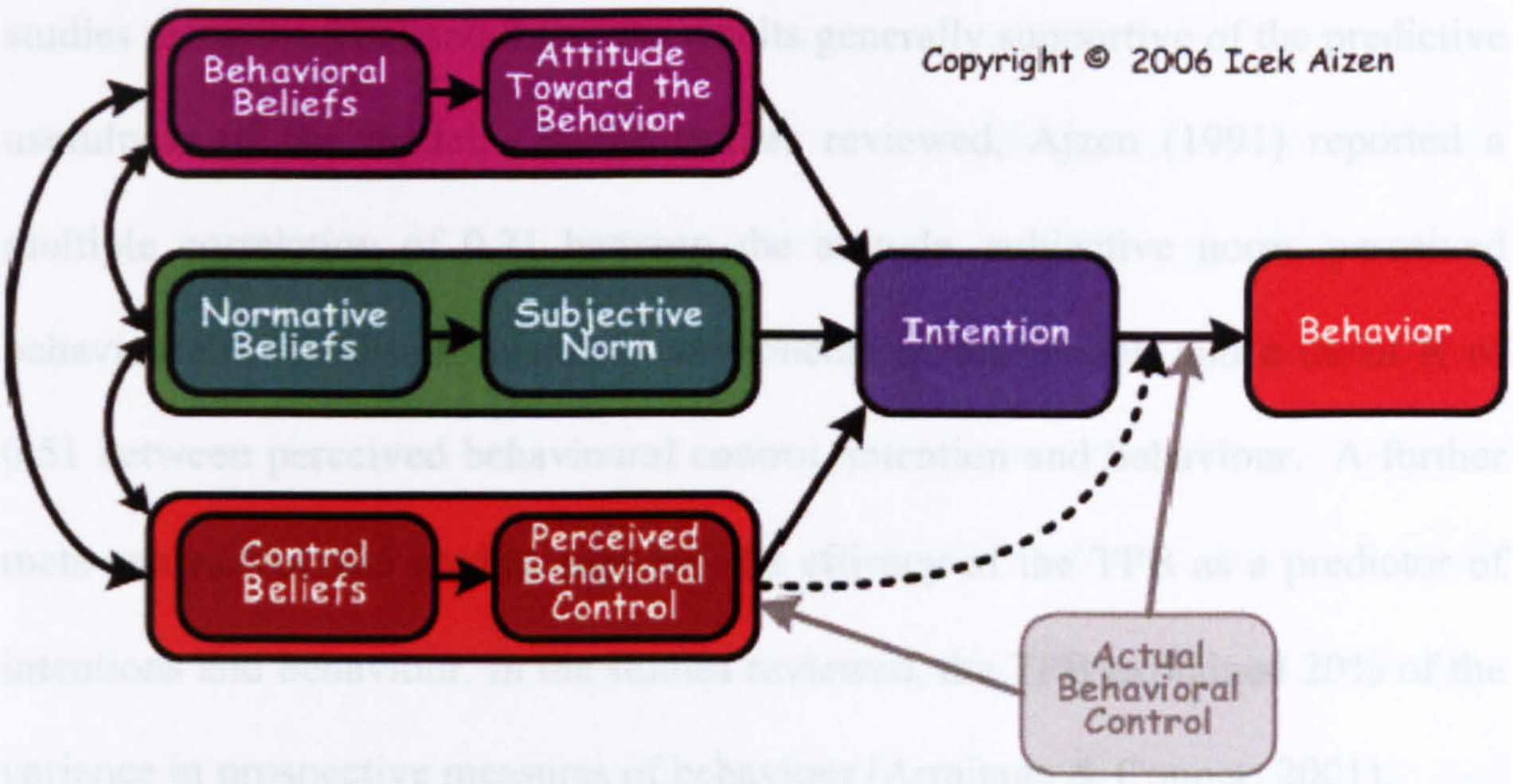
To overcome the limitations of the TRA, Ajzen (1985) developed the TPB by extending the TRA to include a third construct, perceived behavioural control, to encompass behaviours where there is incomplete volitional control. As in the TRA, the central component is the individual's intention to perform a given behaviour and the stronger the intention to perform the behaviour, the more likely the performance of it will be.

Perceived behavioural control is added to attitudes and subjective norms as determinants of intention and is concerned with the perception the person has of how easy or difficult it is for them to perform the action. For example, how a nurse may judge how easy or difficult it would be for him or her to carry out

active euthanasia. A behaviour that is judged to be easy to perform is therefore, high in perceived behavioural control, and a behaviour considered difficult to perform would be low in perceived behavioural control. In the model, the perceived behavioural beliefs are multiplied by the likelihood of occurrence of the factor by the perception of the power of the factor to facilitate or inhibit the behaviour (Conner & Sparks, 2005). Within the TRA attitudes to behaviour and subjective norms are established by beliefs about outcomes and normative beliefs held by the individual. Perceived behavioural control is founded upon control beliefs, that is, an assessment of other factors that may increase or reduce the perceived difficulty of performing the behaviour. For example a nurse determining how likely it would be that they would carry out active euthanasia in the knowledge that the act would be unlawful (see figure 5.1).

The link between intentions and behaviour is straightforward in that people tend to engage in behaviours they intend to perform, but as discussed by Conner and Sparks (2005), the link between behaviour and perceived behavioural control is more complex. People are more likely to engage in behaviours they have control over, but as measures of actual control are difficult to obtain, measures of perceptions of control are used as substitutes for measures of actual control.

Figure 5.1 The theory of planned behaviour



5.1.3 Strengths and criticisms of the TPB

The TPB has been applied to a wide range of health behaviours such as cannabis use (Conner & McMillan, 1999), alcohol consumption and tobacco use (McMillan & Conner, 2003), dietary supplements (Conner, Kirk, Cade, & Barrett, 2001) and breastfeeding (Swanson & Power, 2005). Amongst healthcare professionals, the theory has been used to understand nurses' behaviour during cardio-pulmonary resuscitation (Dwyer & Williams, 2002), glove use (Watson & Myers, 2001), use of clinical guidelines (Limbert & Lamb, 2002) and hand hygiene practice (Jenner, Watson, Miller, Jones, & Scorr, 2002). Studies using the TPB usually examine behaviour directed at self, as indicated in use of the model in research on health behaviour. However, in this study, the theory will be used in a different way by attempting to predict behaviour of nurses towards others, that is the patients in their care.

Studies have been carried out to test the theory of planned behaviour and its efficacy in predicting behaviour. Ajzen (1991) carried out a meta-analysis of 16 studies using the TPB and found the results generally supportive of the predictive usefulness of the model. In the studies reviewed, Ajzen (1991) reported a multiple correlation of 0.71 between the attitude, subjective norm, perceived behavioural control and intention components of the model, and a mean R of 0.51 between perceived behavioural control, intention and behaviour. A further meta-analysis of 185 studies supports the efficacy of the TPB as a predictor of intentions and behaviour. In the studies reviewed, the TPB explained 20% of the variance in prospective measures of behaviour (Armitage & Conner, 2001).

5.2 Development of the scenarios

In the focus group interviews described in chapter 2, the eighth question asked the participants if there were any groups of patients or individuals who came to mind when thinking about euthanasia. The patients identified from the responses to this question fell into two main groups:

- those with named conditions such as multiple sclerosis and other degenerative diseases, end stage cardiac failure, cancer, CVA and spinal injuries
- descriptions of patients' symptoms, levels of dependency and quality of life such as those with no quality of life, uncontrollable pain or other symptoms and those who have lost their independence.

The patients identified during the interviews are summarised in Table 2.2 in chapter 2.

Scenarios have been used effectively in TPB studies to investigate road safety (Evans & Norman, 1998; Jamson, Chorlton, & Conner, 2005), and health related behaviour such as the affects of alcohol and condom availability on casual sex (Conner & Flesch, 2001), and pharmacists prescribing behaviours (Walker, Watson, Grimshaw, & Bond, 2004). Based on the responses given to question eight, four fictitious scenarios were developed describing four terminally ill patients in different clinical settings. The participants identified patients with terminal or grossly debilitating chronic conditions and described symptoms which were used in the narratives of the patients in the scenarios. All the patients were described as women of similar ages and socio-economic group who had expressed a wish to die, and whose families were in agreement with their decision. When designing scenarios it is important that situation described should be both relevant and real to the participants (Hughes, 1998). Therefore, three expert practitioners, one from intensive care nursing, one from cancer nursing and one from care of the older adult scrutinised each case study for accuracy of clinical details.

The four patients were described as:

1. Mary admitted to the Intensive Care Unit (ICU) following an acute episode, but with a long history of chronic obstructive pulmonary disease (COPD).
2. Christine admitted to the hospice with ovarian cancer, and extensive local disease.
3. Joan a nursing home resident of three years who had recently suffered a severe cerebro-vascular accident (CVA).

4. Anne admitted to the nursing home in the late stages of motor neurone disease (MND).

It was considered important to describe patients with conditions that would be familiar to the nurses participating in the study. For the ICU patient, it was necessary to describe not only a realistic patient but also one about whom decisions would be made by ICU staff, not one with a chronic condition who may be transferred to another clinical area for palliative care. Hence the necessity was for an acute episode with an underlying chronic condition. COPD is a condition with which nurses in an ICU would be familiar. There are approximately 780 finished consultant episodes related to COPD per year in a typical Health Authority, with 80,307 episodes in England as a whole (McBride & Milne, 1999).

Hospice nurses would have experienced caring for women with ovarian cancer as it is the fourth common cause of cancer deaths in women in this country, causing 4,500 deaths each year. It also has a poor prognosis as only 25% of women survive five or more years after diagnosis (Department of Health, 1999).

Scenarios were written about two nursing home patients, as both MND and CVA were conditions identified from responses to the interview questions and had other supporting evidence for their inclusion in the study. The case of Diane Pretty, a woman terminally ill with MND, and her legal challenge to allow her husband to be immune from prosecution if he assisted her to commit suicide had recently received wide publicity in the press (Barclay, 2002) and professional

journals (Singer, 2002). However, CVA is a more common condition with 110,000 people each year in England and Wales experiencing their first CVA and 30,000 a further CVA. CVA is the single biggest cause of severe disability and the third most common cause of death in the UK and other developed countries (Department of Health, 2001).

5.2.1. Pilot study to measure consistency across the scenarios

A pilot study was carried out to measure consistency in the level of illness, level of distress, quality of life, severity of symptoms and desire to die across the scenarios. Scenarios are used in social science research to elicit perceptions, beliefs and attitudes to hypothetical situations. This technique is useful to research sensitive subjects such as euthanasia as it provides participants with the opportunity to examine the issues from a non-personal perspective, but there may be limitations in how well the information matches reality (Hughes, 1998). In this study, the clinical accuracy of the scenarios was ensured by scrutiny by the expert practitioners, but three scenarios were to be used in the final questionnaire, each describing a different clinical condition. Although the clinical symptoms would differ for each patient, the severity of the illness and their symptoms as well as the level of distress, quality of life and how much they wanted to die needed to be similar across all the patients described in the scenarios.

5.2.1.1 Participants

Nursing students in the final year of the Adult Branch of the Diploma of Higher Education in Nursing were invited to participate. From an approximate

population of 150 students, an opportunistic sample of 85 students participated by completing a questionnaire giving a response rate of 68%. Within the sample 75 participants were female with ages ranging from 21-49 years ($\bar{X}$=29.71, SD=7.19). The 10 male participants were slightly younger with an age range of 21-31 years ($\bar{X}$=25.40, SD =3.24).

5.2.1.2 Measures

A questionnaire was developed consisting of all four scenarios. Each scenario was followed by five questions each measured on a nine-point scale:

How ill do you think (patient's name) is? Anchored at each end ('1' not at all ill, '9' extremely ill).

How distressed do you think (patient's name) is? Anchored at each end ('1' not at all distressed, '9' extremely distressed).

How would you rate (patient's name) quality of life? Anchored at each end ('1' extremely poor, '9' extremely good).

How severe do you think (patient's name) symptoms are? Anchored at each end ('1' not at all severe, '9' extremely severe).

How much do you think (patient's name) wants to die? Anchored at each end ('1' definitely does not, '9' definitely does).

To minimise asymmetric order bias, the scenarios were presented in counterbalanced order.

5.2.1.3 Ethical considerations

Approval for the study was sought and obtained from the School of Healthcare Educational Research Ethics Committee. At the end of taught sessions, final year

adult branch students were informed verbally about the study and what participation entailed. Those who agreed to participate completed the questionnaire. Consent was assumed by completion of the questionnaire.

5.2.1.4 Results

Ratings for the 4 scenarios were analysed using separate one-way ANOVA and the findings are summarised in Table 5.1. Where sphericity could not be assumed Greenhouse-Geisser adjustment to degrees of freedom was applied to protect against inflated F / type 1 error. The scores rating the patient's desire to die yielded non-significant results for an effect of scenario ($F(3,252) = 0.79$ ns). But significant differences were found between the rating of the patient's severity of illness, level of distress, quality of life and severity of symptoms. Post-hoc comparisons were performed to examine between subject effects.

Table 5.1 Rating of scenarios

Scenarios	Severity of illness		Level of distress		Quality of life		Severity of symptoms		Desire to die	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Mary COPD ICU patient	8.14	1.08	7.31	1.80	2.79	2.21	7.91	1.39	7.81	1.39
Christine Ovarian cancer Hospice patient	8.21	1.17	7.71	1.49	3.45	2.44	8.08	1.01	7.71	1.56
Anne MND Nursing home patient	7.20	1.34	8.18	1.29	2.78	2.19	7.34	1.44	7.91	1.45
Joan CVA Nursing home patient	6.97	1.69	7.14	1.69	2.69	1.99	7.05	1.57	7.62	1.53

The severity of illness scores were significantly different across the scenarios (F (3,252) = 26.10, p<0.001). Post-hoc comparisons showed similar scores for the ICU patient and the hospice patient, and for the two nursing home patients. However, significant differences were found between the scores for the ICU patient ($\bar{X}$=8.14, SD = 1.08) and both the nursing home patient with MND ($\bar{X}$=7.20, SD=1.34) (p<0.001), and the nursing home patient with a CVA ($\bar{X}$=6.97, SD=1.69) (p<0.001). Significant differences were not found between the nursing home patient with MND and the nursing home patient with a CVA.

The level of distress scores were also significantly different between scenarios (F (3,249) = 9.29, p<0.001). Post-hoc comparisons revealed that the level of distress for the nursing home patient with MND ($\bar{X}$=8.18, SD=1.29) was rated significantly worse than that of the ICU patient ($\bar{X}$=7.31, SD =1.80) (p<0.001) and the nursing home patient with a CVA ($\bar{X}$=7.14, SD=1.69) (p <001).

Further significant differences were found between the quality of life scores between the scenarios (F (3,252) = 4.10, p<0.01). The scores for the ICU patient ($\bar{X}$=2.79, SD=2.21), the nursing home patient with MND ($\bar{X}$=2.78, SD=2.19), and the nursing home patient with a CVA ($\bar{X}$=2.69, SD=1.99) were similar, while the scores for the hospice patient revealed her quality of life to be rated better than the others ($\bar{X}$=3.45, SD=2.44). However, significant differences were only found between the hospice patient's quality of life and that of the nursing home patient with a CVA (p <0.05).

Significant differences were found in the severity of symptoms scores between the scenarios (F (3, 231 = 14.91, p<0.001). The scores for the ICU patient ($\bar{X}$=7.91,

SD=1.39) and the hospice patient ($\bar{X}$=8.08, SD=1.01) were similar as were those of nursing home patient with MND ($\bar{X}$=7.34, SD=1.44) and the nursing home patient with a CVA ($\bar{X}$=7.05, SD=1.57). Post-hoc comparisons showed differences in the severity of the symptoms between the ICU patient ($\bar{X}$=7.91, SD=1.39) and the patient with MND ($\bar{X}$=7.34, SD=1.44) ($p<0.01$), and the patient with a CVA ($\bar{X}$=7.05, SD=1.57) ($p<0.001$). Similar differences were found between the severity of the symptoms of the hospice patient ($\bar{X}$=8.08, SD=1.01) and the patient with MND ($\bar{X}$=7.34, SD=1.44) ($p< 0.001$), and the patient with a CVA ($\bar{X}$=7.05, SD=1.57) ($p<0.001$).

While the results did show some inconsistencies between the patients, the symptoms described were perceived to be realistic for the named disease, and any attempts made to alter the clinical details may have distorted the accuracy of the scenarios. If scenarios were used as a research tool with the aim of matching real life experiences, they have clear limitations, but as Hughes (1998) discusses, they can be used to provide an interpretation of the real world presented in such a way as to provide participants with a situated context in which to respond. The context for the selected scenarios was clinical practice, and as the research participants would be practising nurses, an accurate portrayal of the clinical context was essential therefore, the details in the patient experiences were left unchanged.

The analysis did not show a clear reason for selecting the patient with MND as the nursing home patient over the one with a CVA, but because of the high incidence of CVA in the population, this patient was selected. The four scenarios included in the

questionnaire were Joan, a nursing home patient with a CVA, Mary an ICU patient with COPD and Christine a hospice patient with ovarian cancer.

5.3. Using the TPB to understand nurses' attitudes towards euthanasia

5.3.1 Objectives

The study had two objectives:

- What are the attitudes of nurses working in ICU, hospices and nursing homes to euthanasia?
- Do nurses who work in different clinical areas hold similar attitudes to euthanasia?

5.3.2 Method

5.3.2.1 TPB Measures

A series of items designed to assess components of the TPB were developed from content analysis of the data obtained in the interviews described in chapter 2. Measures of behavioural intentions, attitudes, behavioural beliefs, subjective norms, normative beliefs, perceived behavioural control and control beliefs were developed (Conner & Sparks, 2005) for each scenario and mapped to the themes derived from the content analysis of the interview data (see Table 5.2).

To fully reflect the findings from the interviews, a further measure of moral norms was included. Conner and Sparks (2005) suggest that personal beliefs about right and wrong have been found to be significant independent predictors of intentions and behaviour for some particular behaviours and therefore, the inclusion of questions about the nurses' moral beliefs about euthanasia was appropriate.

The phrase "a lethal dose of medication" (LDM) was used to overcome ambiguity of the definitions of active and passive euthanasia discussed in the literature review in Chapter 1.

Table 5.2 Themes from content analysis mapped onto TPB measures

TPB measures	Theme from content analysis
Behavioural beliefs	A pain free death End of suffering Cost effectiveness Positive feelings Negative feelings Suspicion and its effect on public confidence
Subjective norms	Nurse's family and friends
Normative beliefs	Other professionals Patient's family and carers
Perceived behavioural control	Control Responsibility
Control beliefs	Guidelines and protocol The law MTD involvement Family involvement Being convinced about the patient's decision
Moral norms	Nurses moral beliefs

5.3.2.1.1 Behavioural intentions

Behavioural intentions were assessed by 2 items.

1. *I would intend to give (patient's name) a lethal dose of medication in this situation.*

2. *In this situation I would want to give (patient's name) a lethal dose of medication.*

Responses were measured on a seven-point scale anchored at each end '1' definitely would not, '7' definitely would. The mean was computed to give an overall intention score for each scenario (α = 0.76 for the nursing home patient, 0.74 for the ICU patient and 0.68 for the hospice patient).

5.3.2.1.2 Attitudes

Two measures were used which were the mean of seven semantic differential scales (a) for administering a lethal dose of medication and (b) for not administering a lethal dose of medication. The semantic differential scales used were *bad-good, wrong-right, repulsive-attractive, unjustified-justified, unhelpful-helpful, unsatisfactory-satisfactory, foolish-wise.* For example '*For me to give (patient's name) a lethal dose of medication would be'* anchored at each end '1' bad, '7' good. (For scale (a) α = 0.95 for the nursing home, ICU and hospice patients. For scale (b) α = 0.94 for the nursing home and ICU patients and 0.95 for the hospice patient).

5.3.2.1.3 Behavioural beliefs

Eight beliefs were assessed.

1. *Giving (patient's name) a lethal injection would allow her to have a pain free death.*
2. *(Patient's name)'s family would not need to see her suffer if she was given a lethal dose of medication.*
3. *(patient's name) could decide when she wants to die by a lethal dose of medication.*
4. *Giving (patient's name) a lethal dose of medication would be a cost efficient use of healthcare resources.*

5. *Giving (patient's name) a lethal dose of medication would respect her wishes.*
6. *Giving (patient's name) a lethal dose of medication would end her suffering.*
7. *Giving (patient's name) a lethal dose of medication would make the nurse feel guilty.*
8. *Giving (patient's name) a lethal dose of medication would reduce the general public's trust in nurses.*

Responses were measured on a seven-point scale anchored at each end ('1' unlikely would not, '7' likely). Each behavioural belief was followed with an outcome evaluation, for example, '*(patient's name) having a pain free death is'* anchored at each end '1' bad, '7' good. Each behavioural belief was multiplied by the corresponding outcome evaluation and the mean computed. [1]

5.3.2.1.4 Subjective norms

Two questions were used

1. *People important to me would strongly disapprove/strongly approve of me giving (patient's name) a lethal dose of medication.* Anchored at each end '1' strongly disapprove, '7' strongly approve
2. *People important to me would want me to give (patient's name) a lethal dose of medication.*

Anchored at each end '1' unlikely, '7' likely ($\alpha = 0.94$ for the nursing home patient, 0.82 for the ICU patient and 0.89 for the hospice patient).

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[1] Belief-based measures in the TPB are formative rather than reflective indicators of the measured construct, therefore, measures of internal reliability are inappropriate and not reported here (Conner et al., 2001)

5.3.2.1.5 Normative beliefs

Four beliefs were assessed.

1. *(Patient's name)'s family would want me to administer a lethal dose of medication.*
2. *(Patient's name) would want me to give her a lethal dose of medication.*
3. *The other nurses I work with would want me to give (patient's name) a lethal dose of medication.*
4. *Other members of the multidisciplinary team would want me to administer a lethal dose of medication to (patient's name).*

Anchored at each end '1' unlikely, '7' likely. Corresponding to each normative belief was a motivation to comply question, for example *'How much do you want to do what (patient's name) wants*' anchored at each end'1' not at all, '7' very much. Each normative belief was multiplied by the corresponding motivation to comply and the mean computed. [1]

5.3.2.1.6 Perceived behavioural control

This was measured with four items.

1. *How much control do you feel that you have over giving (patient's name) a lethal dose of medication?* Anchored at each end '1' no control, '7' complete control
2. *If I wanted to I could easily administer a lethal dose of medication to (patient's name).*
3. *Whether I administered a lethal dose of medication to (patient's name) would be entirely up to me.*
4. *I would like to give (patient's name) a lethal dose of medication, but I don't know if I could.*

Anchored at each end '1' strongly disagree, '7' strongly agree (α = 0.47 for the nursing home patient, 0.49 for the ICU patient and 0.47 for the hospice patient). As this scale was unreliable, single measures were used, item 1 to measure control, and item 2 to measure efficacy and items 3 and 4 were discarded from further analysis.

5.3.2.1.7 Control beliefs

Seven beliefs were assessed anchored at each end '1' more difficult, '7' easier.

1. *Having guidelines to follow would make it more difficult/easier to administer a lethal dose of medication to (patient's name).*
2. *If it was not against the law, administering a lethal dose of medication to (patient's name) would be more difficult/easier.*
3. *Having the agreement of the multidisciplinary team would make administering a lethal dose of medication to (patient's name) more difficult/easier.*
4. *Having the agreement of (patient's name)'s family would make it more difficult/easier to administer a lethal dose of medication.*
5. *Being directly involved in (patient's name)'s care would make it more difficult/easier to administer a lethal dose of medication.*
6. *Believing that (patient's name)'s family had influenced her decision would make it more difficult/easier to administer a lethal dose of medication.*
7. *Being convinced that (patient's name) wanted to die would make it more difficult/easier to administer a lethal dose of medication.*

The mean was computed to give the scale [1].

5.3.2.1.8 Moral norms

Two items were used to measure moral norms.

1. *For me to give (patient's name) a lethal dose of medication would be morally wrong.*
2. *Giving (patient's name) a lethal dose of medication would be the right thing to do.*

Anchored at each end '1' strongly disagree, '7' strongly agree (α = 0.67 for the nursing home patient, 0.73 the ICU patient and 0.77 for the hospice patient). The mean was computed to give the scale

5.3.2.2 Measures of consistency

Because of the inconsistencies shown between the patients in the analysis of the scenario rating, the same 5 questions assessing severity of illness, level of distress, quality of life, severity of symptoms and the patient's desire to die used in the pilot study were also included following the TPB measures for each scenario.

5.3.2.3 Euthanasia Ideology Scale

To measure more general attitudes to euthanasia, the Euthanasia Ideology Scale developed by Adams et al (1978) was used. The scale consists of four questions measured using a five point Likert scale strongly agree, agree, uncertain, disagree, strongly disagree with the scoring of questions 3 and 4 reversed. In keeping with the TPB measures, the questions were adapted and the term 'euthanasia' was replaced with the phrase 'a lethal dose of medication'. The adapted questions are:

1. *Administering a lethal dose of medication is wrong regardless of extenuating circumstances.*
2. *Life at any price or condition is better than not worth living.*

3. *Dignity of life should allow one the privilege of deciding the appropriate time to die.*
4. *The prolongation of life, just for the sake of longevity seems personally demeaning.*

The alpha for this scale was 0.73, and the mean computed to give the EIS score.

From the content analysis of the data obtained from the interviews, three additional items were added regarding the responsibilities of the nurse in carrying out acts of euthanasia. The additional questions were:

5. *Assisting suicide is more acceptable than administering a lethal dose of medication.*
6. *A nurse should be able to refuse to administer a lethal dose of medication.*
7. *Administration of a lethal dose of medication is too great a responsibility for a nurse.*

Similarly to the four questions in the EIS, a five point Likert scales, strongly agree, agree, uncertain, disagree, strongly disagree was used.

5.3.2.4 Biographical information

Because of the sensitive nature of the questionnaire, completion was anonymous (Oppenheim, 1992), but each respondent was asked:

1. to identify their area of clinical practice as either a nursing home, hospice or ICU
2. their year of qualification.
3. their age

4. their qualifications (participants were asked to tick all that applied amongst 6 options; first level registration, diploma with first level registration, post-registration diploma, bachelors degree, masters degree, research degree)
5. to describe their religious beliefs and select one response from three alternatives:
    a. *I hold strong religious views and attend services regularly*
    b. *I hold religious views but do not often attend religious service*
    c. *I hold no religious views*

Respondents were also asked to identify their religion as Jewish, Buddhist, Sikh or Muslim, or if a Christian, as a Roman Catholic, Protestant or a committed Christian. A free text option allowed participants to identify any other religious group

The final questionnaire therefore, consisted of three scenarios describing an ICU, nursing home and hospice patient. Each scenario was followed by 43 questions of TPB measures and a further 5 consistency measures. To minimise asymmetric order bias, the scenarios were presented in different orders to equal numbers of participants. However, the order of questions to each scenario was not changed. The scenarios and questions were followed with the modified EIS and 7 questions of biographical information. The complete questionnaire is shown in Appendix 5.1.

5.3.3 Procedure

The following clinical areas were selected for inclusion in the study.

1. Two NHS Trust Intensive Care Units
2. Five hospices selected non-systematically from the Northern and Yorkshire section of the Hospice Directory

3. Six nursing homes selected non-systematically from nursing homes in North and West Yorkshire listed on the Yellow Pages web site (www.yell.com).

The selected clinical areas were contacted by telephone and an appointment made to discuss the project with an appropriate senior nurse in each unit. The total number of registered nurses in each ICU unit, hospice and nursing home was obtained from the off duty roster in each clinical area, and a questionnaire left for each identified member of staff. Having negotiated a suitable time for the questionnaires to be completed, they were left along with an information sheet and return envelope for each nurse to collect at their mail collection points. Having completed the questionnaire it was placed it in a sealed envelope and left at the agreed collection point in each clinical area. The questionnaires were then collected.

5.3.4 Ethical considerations

The study was carried out within the guidelines of the NHS Research Governance Framework, and ethical approval was sought and obtained from Leeds Eastern Research Ethics Committee. Before participating in the study all respondents were given an information sheet about the research. Consent was assumed by completion and return of the questionnaire. All data were collected anonymously. While acknowledging the subject matter was sensitive in nature, for the same reasons as in Chapter 4, no special measures were taken to debrief participants.

5.3.5 Sample

A non-randomised sample convenience sample of 140 nurses completed the questionnaire. A total of 256 questionnaires were distributed across 2 ICU units, 5

hospices and 6 nursing homes, and 140 returned giving an overall response rate of 55%. The sample size and response rates for each clinical area are shown in Table 5.3.

Table 5.3 Distribution of questionnaires and response rate

Clinical area	Number of units	Distributed	Returned	Response rate
ICU units	2	92	42	46%
Hospices	5	84	53	63%
Nursing homes	6	80	45	56%
Total	**13**	**256**	**140**	**55%**

Although similar numbers of staff were identified in each clinical area, the response rate for the ICU units was lower than that of the nursing homes and ICU units. The method of questionnaire distribution does not allow a nurse, who having looked at the questionnaire decided not to complete it, to be distinguished from a nurse who may not have received one. Therefore, there may be some self-selection bias.

Most of the respondents were female (n = 129, see Table 5.4). Only 7% of the sample was male. This is consistent with the gender balance of the professional register where approximately 10% of those registered as nurses are male (NMC, 2002).

Table 5.4 Gender and age of respondents

	ICU (n=42)	**Hospice (n= 53)**	**Nursing home (n=45)**
Gender			
Male	3 (7%)	2 (4%)	5 (11%)
Female	39 (93%)	51 (96%)	39 (87%)
Age:			
20-29	18 (43%)	1 (2%)	8 (18%)
30-39	14 (33%)	11 (21%)	12 (27%)
40-49	9 (21%)	22 (42%)	16 (36%)
50-59	1 (2%)	18 (34%)	5 (11%)
60-69	0	0	2 (4%)

Significant differences were found between the ages of the respondents according to the clinical area ($F(2,134) = 27.07$, $p<0.001$). Post hoc tests showed the ICU nurses ($\bar{X}$=32.40, SD=7.65) to be significantly younger than the hospice nurses ($\bar{X}$=45.29, SD=7.71) ($p<0.001$) and the nursing home nurses ($\bar{X}$=40.44, SD=9.96) ($p<0.001$).

Table 5.5 shows an overview of the respondent's qualifications. Participants were asked to tick all boxes that applied, and while all in the sample were registered nurses, registration can be obtained with different levels of academic awards. The percentages in Table 5.5 that are above 100% can be accounted for by these multiple routes to registration. Some nurses would have qualified as a Registered General Nurse (RGN) with a certificate, while others could have become an RGN with a diploma (Dip. pre-reg). Nurses indicating that they held a first degree may have obtained this with registration as an RGN, but others will have completed a degree following registration as an RGN. Only post registration diplomas (Dip post-reg) and masters degrees would have been completed following registration. None of the participants held a research degree and only 2 of the ICU nurses a masters degree; however, nurses working in ICU were more likely to hold a first degree or a diploma than those working in a hospice or nursing home.

Table 5.5 Qualifications of respondents

Qualifications	ICU (n=42)	Hospice (n= 53)	Nursing home (n=45)
RGN	25 (60%)	52 (98%)	38 (84%)
Dip. pre-reg	18 (43%)	1 (2%)	6 (13%)
Dip. post-reg	18 (43%)	20 (38%)	5 (11%)
BA/BSc	17 (41%)	8 (15%)	7 (16%)
MA/MSc	2 (5%)	0	0

As shown in Table 5.6, respondents described themselves as committed Christians, Roman Catholics, Protestants, Muslims or belonging to other religious groups, but not as Buddhist, Sikh or Jewish.

Table 5.6 Religious denominations

Religious denominations	ICU (n=42)	Hospice (n= 53)	Nursing home (n=45)
Committed Christian	4 (10%)	15 (28%)	11 (24%)
Roman Catholic	7 (17%)	2 (4%)	7 (16%)
Protestant	1 (2%)	11 (21%)	6 (14%)
Muslim	0	0	1 (2%)
Other	0	3 (6%)	4 (9%)
None	30 (71%)	22 (41%)	16 (35%)

Table 5.7 shows the religious beliefs of the participants. Nurses working in ICU were less likely to hold strong religious beliefs than those working in hospices or nursing homes ($\chi^2 = 14.47$, df = 6, $p < 0.05$).

Table 5.7 Religious beliefs

Religious beliefs	ICU (n=42)	Hospice (n= 53)	Nursing home (n=45)
None	18 (43%)	10 (26%)	7 (16%)
Moderate	19 (45%)	26 (49%)	20 (44%)
Strong	3 (7%)	13 (25%)	13 (29%)

Nurses working in ICU ($\bar{X}$=9.93, SD=7.48) were significantly less experienced than those working in both hospices ($\bar{X}$=21.76, SD=8.57) and nursing homes ($\bar{X}$=18.77, SD=8.57, F (2,136) = 21.54 p<0.001). While nurses working in ICU tended to be less experienced in their speciality, the differences were not found to be significant (F (2,136) = 1.29, ns), which is to be expected as the ICU nurses were found to be significantly younger than the hospice and nursing home nurses.

5.3.6 Results

5.3.6.1 Analysis of Variance (ANOVA) of TPB variables

Each TPB measure was analysed using a 3 x 3 mixed ANOVA as there were three groups of nurses (from ICUs, hospices and nursing homes) and three patients (from an ICU, hospice and nursing home). Thus, there were 3 independent variables to be measured for with and between subject effects. In each case the main effect of scenario (within subjects effect) was examined in combination with the clinical area of the nurse (between subjects effect). The 3 levels of the within subjects effect were; the nursing home patient, ICU patient and hospice patient, and the 3 levels of the between subjects effect were the clinical areas; the ICU nurses, nursing home nurses and hospice nurses. Additional analysis added further between subjects factors (age or religiosity) each 2 levels separately to the scenario and clinical area. The analysis was conducted in this way in order to avoid the cell occupancy being too small. These additional analyses examined the impact of the additional between subjects factors (age and religiosity) in relation to the scenario and clinical area.

Where sphericity could not be assumed Greenhouse-Geisser adjustment to degrees of freedom was applied to protect against inflated F/type 1 error. Table 5.8 summarises the mean scores for TBP variables for each scenario across all three groups of nurses.

Table 5.8 Mean scores of measured variables for each scenario by each group of nurses

Scenario	Clinical area of nurse	BI			BB			CB			ATT PRO			ATT ANTI		
		n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD
Joan	ICU	42	2.79	1.50	42	26.96	7.00	42	4.69	1.22	42	3.20	1.57	42	4.50	1.54
Nursing	Nursing Home	44	2.43	1.78	44	24.02	9.73	44	3.87	1.58	43	2.97	2.00	43	4.96	1.74
Home	Hospice	52	2.32	1.88	52	23.05	7.71	52	3.55	1.72	50	2.23	1.64	48	5.40	1.62
patient	Total	138	2.50	1.74	138	24.55	8.32	138	4.00	1.60	135	2.77	1.78	133	5.01	1.66
Mary	ICU	42	2.95	1.78	42	27.19	6.78	42	4.84	1.05	42	3.14	1.54	42	4.47	1.56
ICU	Nursing Home	44	3.07	1.99	44	25.29	9.15	44	4.00	1.53	43	3.08	1.92	43	4.86	1.63
patient	Hospice	52	2.16	1.50	52	24.04	8.29	52	3.59	1.72	50	2.36	1.58	48	5.33	1.51
	Total	138	2.69	1.79	138	25.39	8.21	138	4.01	1.56	135	2.84	1.71	133	4.91	1.60
Christine	ICU	42	3.08	1.51	42	27.81	7.18	42	4.80	1.22	42	3.47	1.50	42	4.19	1.57
Hospice	Nursing Home	44	3.24	2.20	44	26.95	9.88	44	4.05	1.64	43	3.37	2.12	43	4.57	1.80
patient	Hospice	52	2.35	1.88	52	24.80	8.54	52	3.60	1.75	50	2.24	1.54	48	5.49	1.48
	Total	138	2.86	1.92	138	26.40	8.65	138	4.12	1.64	135	2.98	1.81	133	4.78	1.70

Scenario	Clinical area of nurse	NB			PBC 1			PBC 2			SN			MB		
		n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD
Joan	ICU	42	18.28	8.27	41	3.63	2.40	41	3.17	2.33	42	3.54	1.69	42	4.35	1.88
Nursing	Nursing Home	43	14.30	8.78	42	4.05	2.22	42	2.57	1.97	44	2.61	1.73	43	4.77	1.72
Home	Hospice	52	15.01	9.52	52	4.62	2.44	50	1.92	1.58	51	2.54	1.66	52	5.37	1.86
patient	Total	137	15.79	9.02	135	4.14	2.38	133	2.51	2.01	137	2.87	1.74	137	4.87	1.86
Mary	ICU	42	17.55	7.75	41	3.44	2.19	41	3.34	2.32	42	3.48	1.67	42	4.63	1.80
ICU	Nursing Home	43	14.13	7.97	42	4.00	2.18	42	2.57	2.07	44	2.83	1.59	43	4.56	1.92
patient	Hospice	52	14.74	8.86	52	4.77	2.53	50	1.82	1.69	51	2.55	1.60	52	5.42	1.78
	Total	137	15.41	8.32	135	4.13	2.37	133	2.53	2.10	137	2.92	1.65	137	4.91	1.86
Christine	ICU	42	18.46	8.33	41	3.73	2.44	41	3.46	2.39	42	3.71	1.60	42	4.12	1.76
Hospice	Nursing Home	43	14.70	8.97	42	4.00	2.19	42	3.05	2.22	44	3.16	1.85	43	4.81	1.86
patient	Hospice	52	15.19	9.67	52	4.77	2.43	50	2.02	1.76	51	2.50	1.69	52	5.45	1.91
	Total	137	16.04	9.14	135	4.22	2.39	133	2.79	2.19	137	3.08	1.78	137	4.84	1.91

5.3.6.1.1 Behavioural intention

A main effect of scenario (F (2,270) = 3.76, p<0.05) indicated a significant difference between the three behavioural intention scores. The behavioural intention score for the hospice patient ($\bar{X}$=2.86, SD=1.92) was significantly stronger than for the nursing home patient ($\bar{X}$=2.50, SD=1.74) (p<0.05), but significant differences between the behavioural intention scores for the nursing home and the ICU patient and the ICU patient and the hospice patient were not found. The main effect of area just failed to reach significance (F (2,135) = 2.92, p = 0.057). Although pairwise comparisons indicated that there was a trend for the hospice nurses ($\bar{X}$=2.28, SD=1.54) to have lower behavioural intention scores than the nursing home nurses ($\bar{X}$=2.91, SD=1.53) and the ICU nurses ($\bar{X}$=2.94, SD=1.54). No significant interaction was found between the clinical area of the nurse and the scenario.

Adding religiosity as a between subjects factor to the analysis did not change the significance of the main effect of scenario (F (2,244) = 3.72, p < 0.05). However, the interaction between the scenario and clinical area of the nurse became significant with this factor included (F (4, 244) = 2.44, p < 0.05) and the mean scores are presented below in Table 5.9.

Table 5.9 Interaction between clinical area of nurse and scenario: behavioural intention

Clinical area of nurse	Scenario	$\overline{X}$	SD
ICU	Nursing Home	2.83	1.74
	ICU	2.99	1.75
	Hospice	3.08	1.90
Nursing home	Nursing Home	2.51	2.28
	ICU	3.22	2.28
	Hospice	3.71	2.49
Hospice	Nursing Home	2.56	2.13
	ICU	2.49	2.13
	Hospice	2.46	2.33

Figure 5.2 Interaction between scenario and area of clinical nurse: behavioural intention

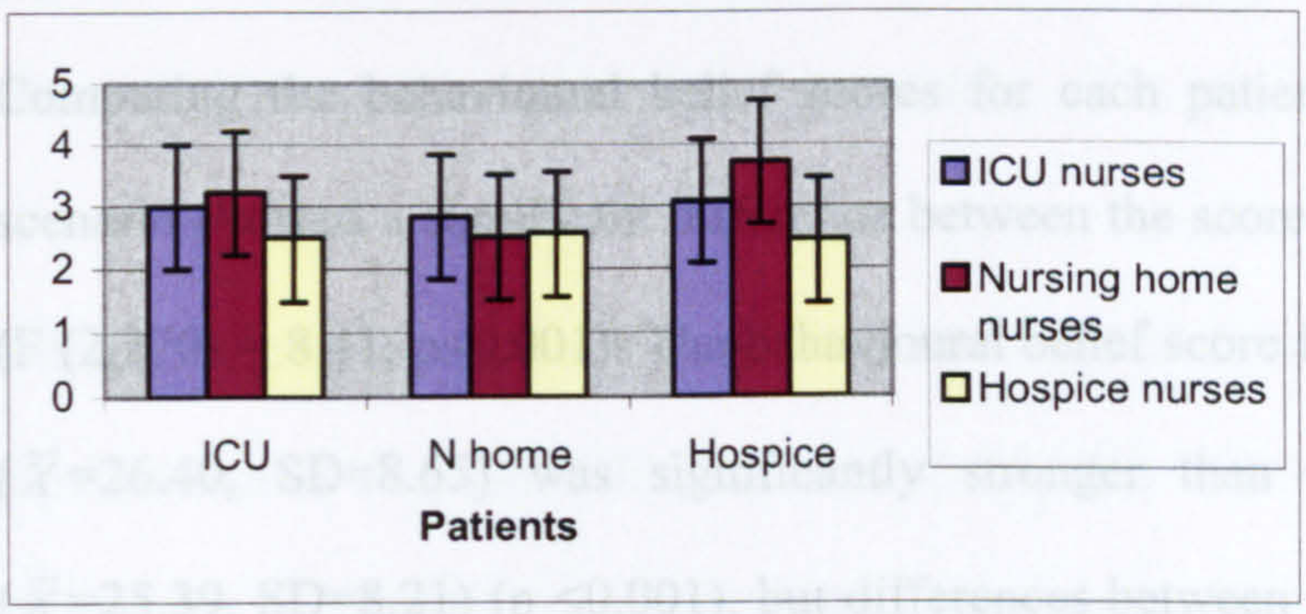


Figure 5.2 indicates, pairwise comparisons showed that while the nurses across each clinical area had similar behavioural intention scores for the nursing home patient, the nursing home nurses had higher behavioural intention scores for the ICU patient ($\overline{X}$=3.22, SD=2.28) and hospice patient ($\overline{X}$=3.71, SD=2.49). There was also a trend for the hospice nurses to have lower behavioural intention scores across all the scenarios.

The main effects of area and religiosity were not found to be significant. In addition the two-way interactions between the clinical area of the nurse and religiosity, religiosity and the scenario, and the three-way interaction between the clinical area of the nurse, religiosity and the scenario were not significant.

Adding age as a between subjects factor again did not change the significance of the main effect of scenario ($F(2,260) = 3.93$, $p < 0.05$). The main effects of area and age were not found to be significant, and none of the two-way and three-way interactions found to be significant.

5.3.6.1.2 Behavioural beliefs

Comparing the behavioural belief scores for each patient the main effect of scenario showed a significant difference between the scores for all three patients ($F(2,270) = 8.41$, $p<0.001$). The behavioural belief score for the hospice patient ($\bar{X}$=26.40, SD=8.65) was significantly stronger than for the ICU patient ($\bar{X}$=25.39, SD=8.21) ($p <0.001$), but differences between the behavioural belief scores for the nursing home patient and the ICU patient and the hospice patient were not found. While significant differences were not found in the main effect of area ($F(2,135) = 2.18$, ns), pairwise comparisons showed there was a trend for the hospice nurses ($\bar{X}$=23.96) to have lower behavioural belief scores than those in the nursing home ($\bar{X}$=24.42) and the ICU ($\bar{X}$=27.32). No significant interaction was found between the clinical area of the nurse and the scenario.

Adding religiosity as an additional between subjects factors did not change the significance of the main effect of scenario ($F(2,244) = 8.77$, $p< 0.001$), nor did

adding age (F (2,260) = 8.23, p< 0.001). The main effects of area, religiosity and age were not found to be significant, and none of the two-way and three-way interactions found to be significant.

5.3.6.1.3 Control beliefs

The control belief variable showed differences in the main effect of area (F (2,135) = 7.78, p<0.001). Post-hoc comparisons showed the ICU nurses to have significantly stronger control beliefs ($\bar{X}$=4.78, SD=1.47) than both the nursing home nurses ($\bar{X}$= 3.97, SD=1.47) (p< 0.05) and the hospice nurses ($\bar{X}$= 3.58, SD=1.27) (p< 0.001). The main effect of scenario was not found to be significant (F (2,270) = 2.02, ns). No significant interaction was found between the clinical area of the nurse and the scenario.

Adding religiosity as an additional between subjects factors did not change the significance of the main effect of area (F (2,122) = 3.68, p< 0.001), nor did adding age (F (2,130) = 7.55, p< 0.001). The main effects of scenario and was not found to be significant. However, the main effect of religiosity (F(2,122) = 7.87, p<0.01), and also that of age was shown to be significant (F (1,130) = 5.22, p<0.05). Pairwise comparison showed the younger nurses ($\bar{X}$=4.41, SD=1.47) (p<0.05) to have higher control belief scores than the older nurses ($\bar{X}$=3.85, SD 1.47) (p<0.05). None of the two-way and three-way interactions found to be significant.

5.3.6.1.4 Attitudes

The TPB variable measuring positive attitudes to euthanasia showed significant differences in the main effect of area (F (2,132) = 5.57, $p<0.01$), with Post-hoc comparisons yielding weaker pro-euthanasia attitudes for the hospice nurses ($\bar{X}$=2.23, SD=1.57) compared to those of the ICU nurses ($\bar{X}$=3.27, SD=1.57) ($p<0.01$) and the nursing home nurses ($\bar{X}$=3.14, SD=1.47) ($p<0.05$). Differences were not found between the attitudes of the ICU nurses and nursing home nurses. The main effect of scenario was found not to be significant (F (2,264) = 2.46, ns) and no significant interaction was found between the clinical area of the nurse and the scenario.

When religiosity was added as a between subjects factor the main effect of area was found not to be significant (F (1,120) = 2.86, ns). The main effect of scenario was also found to be significant (F (2, 240) = 3.07, $p<0.05$), but this is likely to be a statistical artefact as no pairs of means were found to be significant from post-hoc comparisons. The main effect of religiosity was also found to be significant (F (1,120) = 7.87, $p< 0.01$). Post-hoc comparisons showed that the nurses with no religious beliefs ($\bar{X}$=3.57, SD=1.61) held stronger pro-euthanasia attitudes than the nurses holding religious beliefs ($\bar{X}$=2.68, SD=1.53). None of the two-way and three-way interactions were found to be significant.

Adding age as an additional between subjects factor again showed the main effect of area to be significant (F (2,127) = 5.63, $p> 0.01$). The main effect of scenario was not found to be significant, but that of age was (F(1,127) = 4.15, $p<0.05$). The younger nurses ($\bar{X}$= 3.19, SD=1.57) had significantly stronger pro

euthanasia attitudes than the older nurses ($\bar{X}$= 2.63, SD= 1.57) (p< 0.05). None of the two-way and three-way interactions found to be significant.

Similar differences were found in the TPB variable measuring anti euthanasia attitudes. The main effect of area again showed significant differences (F (2,130) = 5.32, p<0.01) with the hospice nurses ($\bar{X}$=5.41, SD=1.46) demonstrating stronger anti euthanasia attitudes than the ICU nurses ($\bar{X}$=4.42, SD=1.45) (p<0.01). Differences were not found between the anti euthanasia attitudes of the hospice nurses and those of the nursing home nurses, the ICU and nursing home nurses. The main effect of scenario was not found to be significant (F (2,260) = 2.63, ns). No significant interaction was found between the clinical area of the nurse and the scenario.

When religiosity was added as a between subjects factor the main effect of area was not found to be significant (F (2,118) = 1.79, ns), however, the main effect of religiosity was found to be significant (F (1, 118) = 4.26, p< 0.05). Post-hoc comparisons showed the nurses declaring religious beliefs ($\bar{X}$=5.01, SD=1.47) to have stronger anti-euthanasia attitudes than those who stated they had no religious beliefs ($\bar{X}$=4.37, SD=1.56) (p = 0.05). The main effect of scenario was again not found to be significant and none of the two-way and three-way interactions were significant.

Adding age as an additional between subjects factor did not change the main effect of area (F (2,125) = 5.24, p< 0.01), and the main effects of scenario and

age and none of the two-way and three-way interactions were found to be significant.

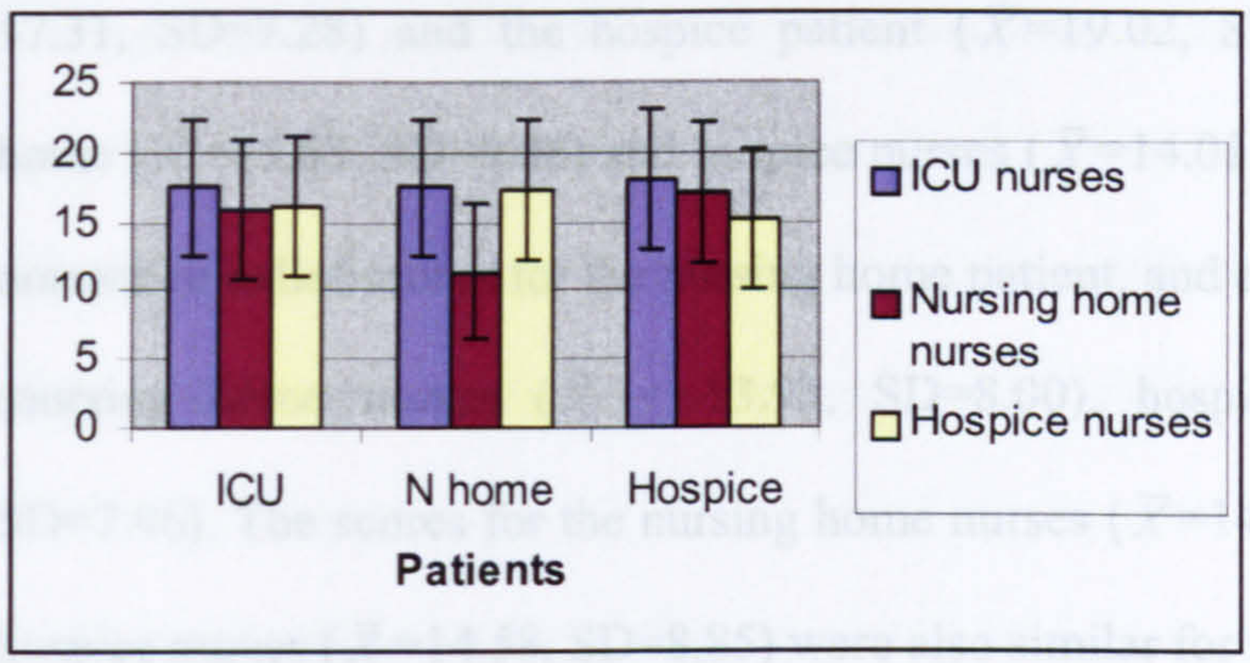
5.3.6.1.5 Normative beliefs

The variable measuring normative beliefs showed no significant differences in either the main effects of area (F (2,134) = 2.58, ns) or scenario (F (2,268) = 0.95, ns) and these main effects were not changed by adding religiosity as an additional between subjects factor. The main effect of age was found to be a significant (F (1,129) = 4.08, $p<0.05$) with the younger nurses holding higher control beliefs ($\bar{X}$=17.35, SD=11.71) than the older nurses ($\bar{X}$=14.52, SD=11.71). Significant differences were also found in the three-way interaction of scenario, area and religiosity (F (4,242) = 2.97, $p>0.05$) and the mean scores are presented below in Table 5.10.

Table 5.10 Interaction between clinical area of nurse, religiosity and scenario: normative beliefs

Clinical area of nurse	Religiosity	Scenario	$\bar{X}$	SD
ICU	None	Nursing Home	17.46	8.95
		ICU	17.43	8.72
		Hospice	17.99	8.34
	Religious beliefs	Nursing Home	18.48	8.09
		ICU	17.31	7.28
		Hospice	19.02	8.81
Nursing home	None	Nursing Home	11.39	7.93
		ICU	15.89	8.84
		Hospice	17.00	9.97
	Religious beliefs	Nursing Home	15.65	9.08
		ICU	13.93	8.00
		Hospice	14.47	8.61
Hospice	None	Nursing Home	17.28	13.46
		ICU	16.08	10.84
		Hospice	15.08	11.09
	Religious beliefs	Nursing Home	14.01	8.32
		ICU	14.01	7.96
		Hospice	14.58	8.85

Figure 5.3 Interaction between scenario and clinical area of nurse for nurses with no religious beliefs: normative beliefs



As Figure 5.3 indicates, pairwise comparisons showed that amongst the nurses with no religious beliefs, the ICU nurse ($\bar{X}$ = 17.46, SD=8.95) and hospice nurses ($\bar{X}$=17.28, SD=13.46) had similar normative belief scores for the nursing home patient but the nursing home nurses ($\bar{X}$=11.39, SD=7.93) had significantly lower scores for the nursing home patient.

Figure 5.4 Interaction between scenario and clinical area of nurse for nurses with some religious beliefs: normative beliefs

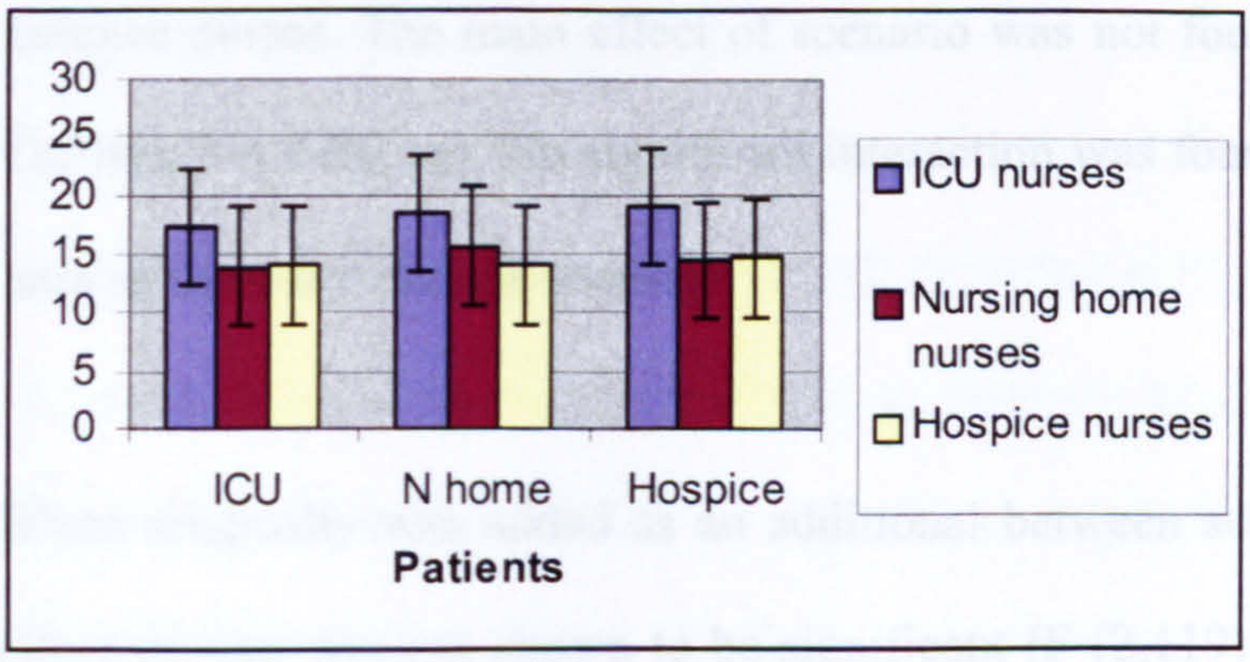


Figure 5.4 indicates that amongst the nurses with religious beliefs, the ICU nurses had higher normative belief scores than the nursing home and hospice nurses for the nursing home patient ($\bar{X}$ =18.48, SD=8.09), the ICU patient ($\bar{X}$= 17.31, SD=7.28) and the hospice patient ($\bar{X}$=19.02, SD=8.34). The nursing home ($\bar{X}$=15.65, SD=9.08) and hospice nurses ($\bar{X}$=14.01, SD=8.32) had similar normative belief scores for the nursing home patient, and also for the ICU patient (nursing home nurses ($\bar{X}$ = 13.93, SD=8.00), hospice nurses ($\bar{X}$=14.01, SD=7.96). The scores for the nursing home nurses ($\bar{X}$=14.47, SD=9.08) and the hospice nurses ($\bar{X}$=14.58, SD=8.85) were also similar for the hospice patient.

5.3.6.1.6 Perceived behavioural control

Four items measured perceived behavioural control, but as this scale proved to be unreliable, two single measures were used the first to measure control, and the second, efficacy. The variable measuring control showed significant differences in the main effect of area (F (2,132) = 3.26, $p<0.05$). The ICU nurses ($\bar{X}$=3.06, SD=2.14) had significantly lower beliefs of control than the hospice nurses ($\bar{X}$= 4.72, SD=2.14) ($p< 0.05$), but differences were not found between the ICU nurses and the nursing home nurses, the nursing home nurse and the hospice nurses. The main effect of scenario was not found to be significant (F (2,264), p = 0.24, ns). No significant interaction was found between the clinical area of the nurse and the scenario.

When religiosity was added as an additional between subjects factor, the main effect of area was not shown to be significant (F (2,119) = 2.81, ns). The main effect of religiosity was not found to be significant and the main effect of

scenario remained non significant. None of the two-way and three-way interactions were found to be significant.

Adding age as an additional between subjects factor did not change the significance of the main effect of area ($F(2,127) = 3.15$, $p<0.05$). The main effects of scenario and age were not found to be significant and none of the two-way and three-way interactions were found to be significant.

The second single perceived behavioural control measure for efficacy showed significant differences in the main effect of area ($F(2,130) = 6.66$, $p< 0.01$). The ICU nurses ($\bar{X}$=3.33, SD=1.84) had stronger beliefs in the efficacy of perceived behavioural control than the hospice nurses ($\bar{X}$=1.92, SD=1.85) ($p< 0.001$), but differences were not found between the ICU nurses and the nursing home nurses, nor between the hospice nurses and the nursing home nurses ($F(2,130) = 6.66$, $p<0.01$). The main effect of scenario also showed significant differences ($F(2,260) = 3.16$, $p<0.05$), but this is likely to be a statistical artefact as no pairs of means were found to be significant from post-hoc comparisons. No significant interaction was found between the clinical area of the nurse and the scenario.

Adding religiosity as an additional between subjects factor did not change the significance of the main effect of area ($F(2,117) = 4.27$, $p< 0.05$), and the main effects of scenario and religiosity were not found to be significant. A significant interaction was found between the clinical area of the nurse and the strength of their religious beliefs ($F(2,117)$, 3.18, $p<0.05$). None of the other two way or three way interactions were found to be significant.

Adding age as an additional between subjects factor did not change the significance of the main effect of area (F (2, 125) = 6.42, p< 0.01). The main effects of scenario and age were not found to be significant and none of the two-way and three-way interactions were found to be significant.

5.3.6.1.7 Subjective norms

The subjective norm TPB variable also showed significant differences in the main effect of area (F (2,134) = 5.21, p<0.01). The ICU nurses ($\bar{X}$=3.58, SD=1.57) had significantly higher scores than the hospice nurses ($\bar{X}$=2.53, SD=1.57) (p< 0.01), but differences were not found between the ICU nurses and the nursing home nurses, nor between the hospice nurses and the nursing home nurses. The main effect of scenario (F (2, 268) = 3.77, p<0.05) showed significant differences with weaker subjective norm scores towards the nursing home patient ($\bar{X}$=2.95, SD=1.63) than towards the hospice patient ($\bar{X}$= 3.12, SD=1.72) (p<0.05), but differences were not found between the ICU patient and the nursing home patient and the hospice patient.

Adding religiosity as an additional between subjects factor did not change the significance of the main effect of area (F (2,121) = 3.81, p< 0.05) and the main effect of scenario (F (2,242) = 5.47, p< 0.01). The main effect of religiosity was also found to be significant (F (1,121) = 4.50, p< 0.05) with the nurses with no religious beliefs ($\bar{X}$=3.50, SD=1.64) having higher subjective norm scores than those with some religious beliefs ($\bar{X}$= 2.81, SD=1.56). Significant differences were also found in the three-way interaction between scenario, area and religion and the mean scores are presented in Table 5.11.

Table 5.11 Interaction between clinical area of nurse, religiosity and scenario: subjective norm

Clinical area of nurse	Religiosity	Scenario	$\overline{X}$	SD
ICU	None	Nursing Home	4.22	1.68
		ICU	3.89	1.69
		Hospice	4.03	1.66
	Religious beliefs	Nursing Home	3.07	1.54
		ICU	3.27	1.16
		Hospice	3.57	1.51
Nursing home	None	Nursing Home	2.79	1.22
		ICU	3.57	1.62
		Hospice	4.07	1.48
	Religious beliefs	Nursing Home	2.67	1.84
		ICU	2.71	1.57
		Hospice	3.03	1.90
Hospice	None	Nursing Home	3.00	2.22
		ICU	2.72	1.86
		Hospice	3.22	2.00
	Religious beliefs	Nursing Home	2.36	1.40
		ICU	2.42	1.42
		Hospice	2.22	1.42

Figure 5.5 Interaction between scenario and clinical area of nurse for nurses with no religious beliefs: subjective norm

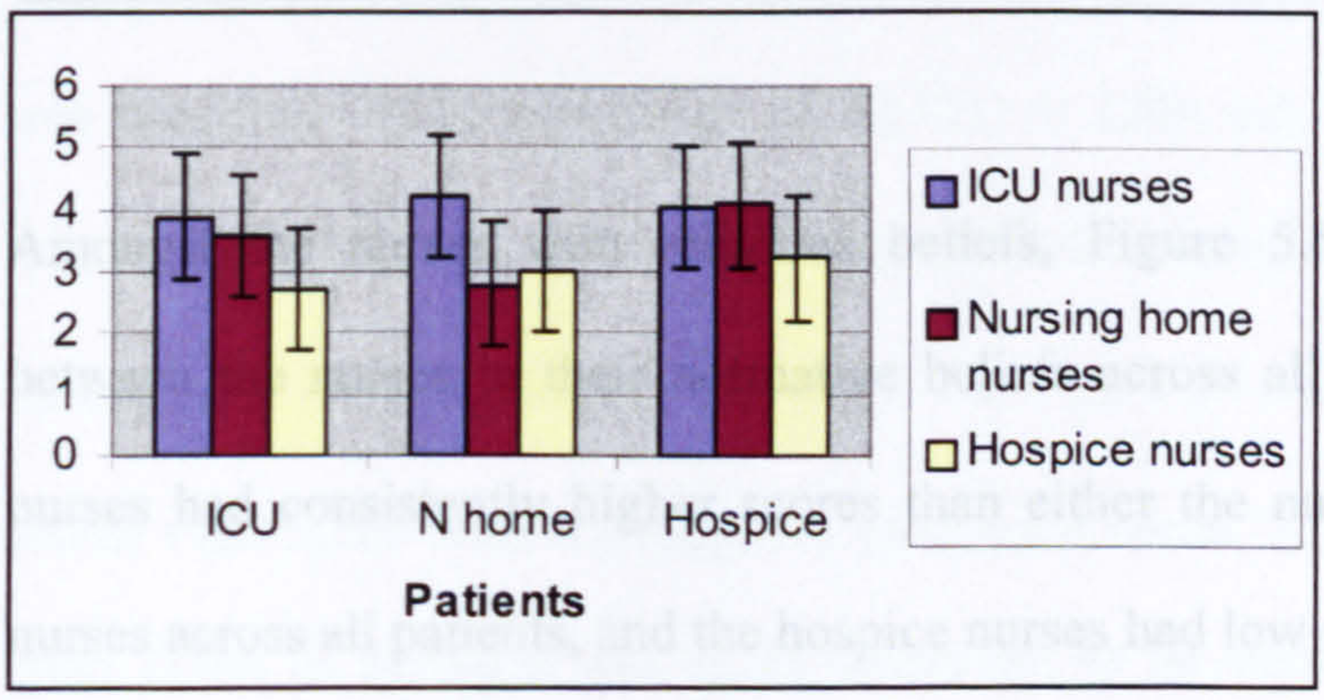
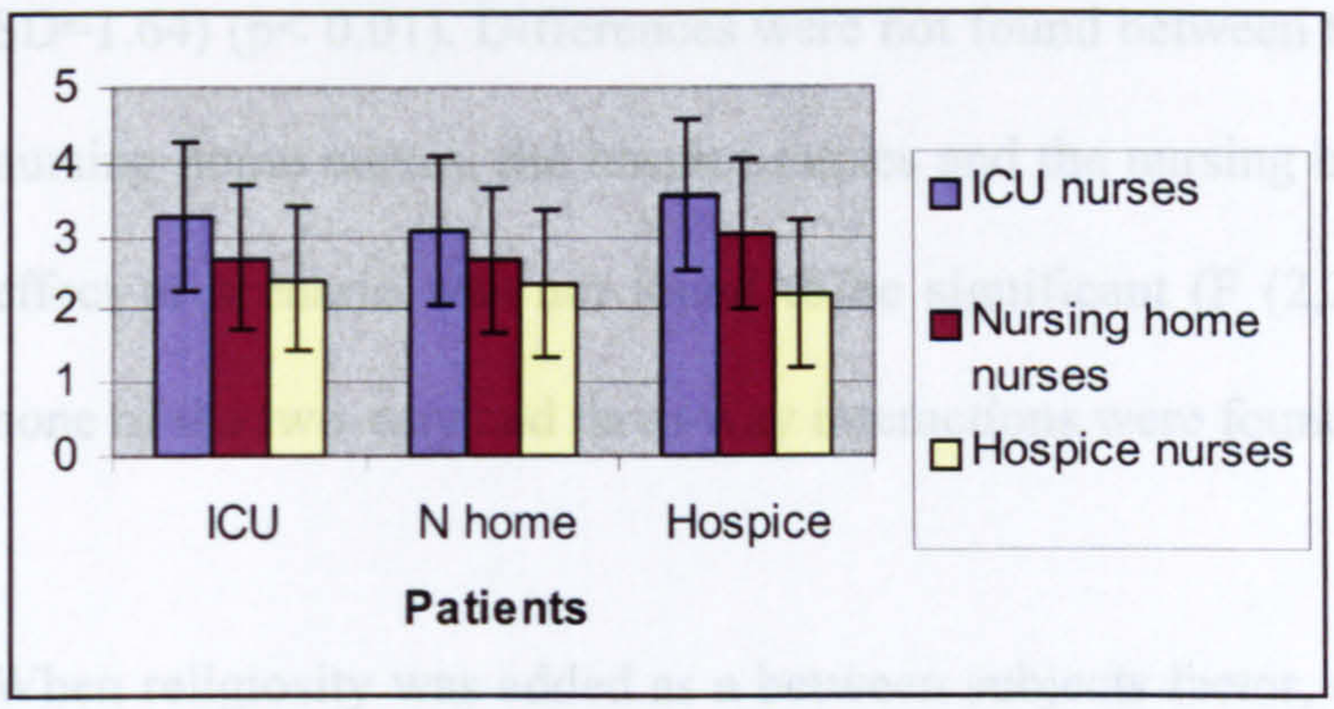


Figure 5.5 indicates that amongst the nurses with no religious beliefs, there was a trend for the ICU nurses to have higher subjective norm scores and the hospice nurses to have lower scores across all three patients. The nursing home nurses had the most differences in their scores towards each patient. The nursing home

nurses ($\bar{X}$=2.79, SD=1.22) and hospice nurses ($\bar{X}$=3.00, SD=2.22) had similar scores for the nursing home patient, however, the ICU nurses had higher scores for this patient ($\bar{X}$=4.22, SD=1.68). For the hospice patient, the scores of the nursing home nurses ($\bar{X}$=4.07, SD=1.48) and the ICU nurses ($\bar{X}$=4.03, SD=1.66) were similar, but the scores for the hospice nurses were lower for their own patient ($\bar{X}$=3.22, SD=2.00).

Figure 5.6 Interaction between scenario and clinical area of nurse for nurses with some religious beliefs: subjective norm



Amongst the nurses with religious beliefs, Figure 5.6 indicates differences between the nurses in their normative beliefs across all the patients. The ICU nurses had consistently higher scores than either the nursing home or hospice nurses across all patients, and the hospice nurses had low scores that were similar for each patient. The scores for the hospice patient are the most different with the ICU nurses having a higher score ($\bar{X}$=3.57, SD=1.51) than the nursing home nurses ($\bar{X}$=3.03, SD=1.90) and the hospice nurses ($\bar{X}$=2.22, SD=1.49).

Adding age as a between subjects factor did not change the significance of the main effect of area (F (2,129) = 4.91, p< 0.01) and the main effect of scenario (F (2,258) = 3.34, p< 0.05). The main effect of age was not found to be significant and none of the two-way and three-way interactions were found to be significant.

5.3.6.1.8 Moral norms

The moral norm variable showed significant differences in the main effect of area (F (2,134) = 5.03, p<0.01), with the hospice nurses ($\bar{X}$=5.41, SD=1.64) having significantly higher scores than those of the ICU nurses ($\bar{X}$=4.37, SD=1.64) (p< 0.01). Differences were not found between the ICU nurses and the nursing home nurses, the hospice nurses and the nursing home nurses. The main effect of scenario was not found to be significant (F (2,268), = 0.20, ns) and none of the two-way and three-way interactions were found to be significant.

When religiosity was added as a between subjects factor, the main effect of area was found not to be significant (F (2,121) = 2.50, ns), but the main effect of religiosity was found to be significant. Post-hoc comparisons showed that the nurses with religious beliefs ($\bar{X}$=5.11, SD=1.58) to have higher moral norms scores than those with no religious beliefs ($\bar{X}$=4.06, SD=1.66) (p< 0.01). The main effect of scenario was again found not to be significant and none of the two-way and three-way interactions were found to be significant.

Adding age as a between subjects factor did not change the main effect of area (F (2,129) = 5.35, p<0.01). The main effects of scenario and age and none of the two-way and three-way interactions were found to be significant.

5.3.6.1.9 TPB variables summary

The summary of F values for the TPB variables with clinical areas, religiosity and age as between subject factors are summarised in Table 5.12. It is recognised that the performance of multiple tests may result in an elevated risk of type I error, therefore significant results should not be over interpreted.

Table 5.12 Summary of F values for TPB variables with clinical areas, religiosity and age as a between subject factor

Clinical area as a between subject factor										
	BI	**BB**	**CB**	**ATTPRO**	**ATTANTI**	**NB**	**PBC1**	**PBC2**	**SN**	**MB**
Scenario	3.76*	8.41 ***	2.02	2.46	2.63	2.58	0.24	3.16*	3.77*	0.20
Area	2.92	2.18	7.78***	5.57**	5.32**	0.95	3.26*	6.66**	5.21**	5.03**
Scenario & Area	1.89	0.88	0.27	1.17	1.64	0.08	0.37	0.60	2.23	1.75
Clinical area and religiosity as between subject factors										
	BI	**BB**	**CB**	**ATTPRO**	**ATTANTI**	**NB**	**PBC1**	**PBC2**	**SN**	**MB**
Scenario	3.72*	8.77***	0.83	3.07*	2.65	0.78	0.33	1.85	5.47**	0.21
Area	1.34	1.42	3.68*	2.86	1.79	1.53	2.81	4.27*	3.81*	2.50
Religiosity	1.97	0.24	7.87**	7.87**	4.26*	0.07	0.69	0.70	4.50*	10.43**
Scenario & area	2.44*	0.96	0.20	1.64	2.27	1.29	0.02	1.21	2.35	1.75
Area & religiosity	0.69	0.17	0.57	0.82	0.94	0.23	2.50	3.18*	0.01	1.17
Scenario & religiosity	0.00	0.57	2.08	0.36	0.08	1.67	0.05	0.08	0.70	0.07
Scenario & area & religiosit	1.42	0.89	0.60	2.19	1.80	2.97*	0.07	0.50	3.28*	1.86
Clinical area and age as between subject factors										
	BI	**BB**	**CB**	**ATTPRO**	**ATTANTI**	**NB**	**PBC1**	**PBC2**	**SN**	**MB**
Scenario	3.93*	8.28***	1.77	2.74	2.36	1.06	0.17	2.56	3.34*	0.14
Area	1.42	2.18	7.55***	5.63**	5.24**	2.33	3.15*	6.42**	4.91**	5.35**
Age	1.87	0.41	5.22*	4.15*	3.37	4.08*	0.04	0.92	2.65	1.65
Scenario & area	2.17	1.37	0.31	1.14	1.63	0.06	0.55	0.43	2.05	1.73
Area & age	0.69	0.41	0.31	0.43	0.36	0.35	0.58	1.73	0.34	1.50
Scenario & age	1.44	2.82	1.01	0.58	1.86	0.49	0.19	0.69	0.64	0.95
Scenario & area & age	0.67	0.30	0.75	0.85	1.52	2.11	1.30	1.99	1.98	0.13

$p < 0.05$ = * $p < 0.01$ = ** $p < 0.001$ = ***

5.3.6.2 Euthanasia Ideology Scale

The modified euthanasia ideology scale consisted of four items analysed using one-way ANOVA to examine the main effect of area but differences were not found (F (2,136) = 1.22, ns). Table 5.13 shows the mean scores for each group of nurses which are similar and towards the bottom of the scale demonstrating overall negative attitudes to euthanasia.

Table 5.13 Mean scores and standard deviation for the Euthanasia Ideology Scale

Clinical area of nurse	N	$\bar{X}$	SD
ICU	42	2.67	.58
Nursing Home	44	2.80	.51
Hospice	53	2.64	.42
Total	139	2.70	.50

When added as an additional between subjects factor, the main effect of religiosity was shown to be significant (F (1,123) = 4.57, $p<0.05$). Post-hoc comparisons showed that the nurses with no religious beliefs ($\bar{X}$=2.89, SD=0.54) had higher EIS scores than the nurses with some religious beliefs ($\bar{X}$=2.66, SD=0.51) ($p<0.05$). The main effect of age was not found to be a significant when added as an additional between subjects factor (F (2,131) = 3.12, ns).

Three additional questions were added to the euthanasia ideology scale as described above to measure if the nurses though assisted suicide was more preferable than euthanasia, whether nurses should have a right to refuse to participate and if euthanasia was considered to be too great a responsibility for nurses. Table 5.14 shows the mean scores for these variables

Table 5.14 Mean scores and standard deviation for additional items

Clinical area of nurse	Assisted suicide			Right to Refuse			Responsibility		
	n	$\bar{X}$	SD	n	$\bar{X}$	SD	n	$\bar{X}$	SD
ICU	42	3.02	1.16	42	1.20	.40	42	2.29	1.54
Nursing home	44	3.75	1.20	44	1.46	.93	44	1.93	1.23
Hospice	53	3.45	1.15	53	1.09	.30	53	1.62	.90
Total	139	3.42	1.20	139	1.24	.61	139	1.92	1.25

The main effect of clinical area showed significant differences regarding the acceptability of assisted suicide ($F(2,136) = 4.17$, $p<0.05$), and post-hoc comparisons indicated that the ICU nurses ($\bar{X}= 3.02$, SD=1.16) were significantly more likely to think that assisting suicide is more preferable than administering a LDM than those in the nursing home ($\bar{X}= 3.75$, SD=1.20) ($p<0.05$).

When religiosity was added as a between subjects factor, the main effect of area was not significant ($F(2,123) = 2.27$, ns), and the main effect of religiosity was also found not to be significant ($F(1,123) = 0.74$, ns). Adding age a between subject factor did not change the main effect of area ($F(2,131) = 3.83$), $p<0.05$), but the main effect of age was not shown to be significant ($F(1,131) = 1.25$, ns).

The variable measuring the right of nurses to be able to refuse to administer a LDM showed significant differences in the main effect of area ($F(2,136) = 4.62$, $p<0.05$). Post-hoc comparisons showed the ICU nurses ($\bar{X}=1.19$, SD=0.60) and hospice nurses ($\bar{X}= 1.09$, SD=0.60) more likely to agree that nurses should be able to refuse to participate than those in the nursing home ($\bar{X}= 1.46$, SD=0.59) ($p<0.05$).

When religiosity was added a between subjects factor, the main effect of area was not significant (F (2,123) = 1.78, ns), and the main effect of religiosity was also found not to be significant (F (1,123) = 0.33, ns). Adding age as a between subject factor did not change the main effect of area (F (2,131) = 3.61), $p<0.05$), but the main effect of age was not shown to be significant (F (1,131) = 1.46, ns).

Similar differences were found in the variable measuring responsibility with the main effect of area showing significant differences (F (2,136) = 3.44, $p<0.05$). Post-hoc comparisons showed the ICU nurses ($\bar{X}$= 2.29, SD=1.22) were more likely to agree that administering a LDM is too great a responsibility than the hospice nurses ($\bar{X}$=1.62, SD=1.22) ($p<0.05$).

When religiosity was added as a between subjects factor, the main effect of area was not significant (F (2,123) = 2.15, ns), but the main effect of religiosity was found to be significant (F (1,123) = 8.66, $p<0.01$). Post-hoc comparisons indicated that the nurses with no religious beliefs ($\bar{X}$=2.56, SD=1.31) were more likely to agree that administering a LDM was too great a responsibility for nurses than those with some religious beliefs ($\bar{X}$=1.81, SD=1.25) ($p<0.01$). Adding age as a between subject factor did not change the main effect of area (F (2,131) = 3.44), $p<0.05$), but the main effect of age was not shown to be significant (F (1,131) = 0.70, ns).

5.3.6.3 Measures of consistency

The five questions used in the pilot study examining the patient's severity of illness, distress, quality of life, severity of symptoms and the strength of the

patient's desire to die followed the TPB variables for each of the three patients. Each was analysed using a mixed ANOVA examining the main effect of scenario (within subject effect) in combination with the clinical area of the nurse (between subjects effect). Additional analysis added a further between subjects factor (religiosity or age each two levels one at a time). As in the analysis of the TPB variables, these additional analyses examined main effects, the 3 two-way interactions between the scenario, clinical area of the nurse, and religiosity or age, and 1 three-way interaction, scenario by area, by age or religiosity.

5.3.6.3.1 Severity of illness

A main effect of scenario ($F(2,270) = 11.01$, $p<0.001$) indicated significant differences in severity of illness between the three patients. Post-hoc comparisons showed the ICU patient ($\bar{X}=6.38$, SD=0.94) and the hospice patient ($\bar{X}=6.36$, SD=1.03) to have significantly higher scores for severity of illness than the nursing home patient ($\bar{X}=5.96$, SD=1.10). The main effect of area was also found to be significant ($F(2,135) = 3.70$, $p< 0.05$) with the ICU nurses having lower scores ($\bar{X}=5.98$, SD=0.76) than the hospice nurses ($\bar{X}=6.36$, SD=0.76). No significant interaction was found between the clinical area of the nurse and the scenario.

Adding religiosity as an additional between subjects factor did not change the main effect of scenario ($F(2,244) = 6.24$, $p<0.01$) or area ($F(2,122) = 5.06$, $p< 0.01$). The main effect of religiosity was not found to be significant. Adding age as an additional between subjects factor did not change the main effect of scenario ($F(2,260) = 11.31$, $p<0.001$), or area ($F(2,130) = 3.91$, $p<0.05$) and the

main effect of age was not found to be significant. However, significant differences were found in the two-way interaction between scenario and the age of the nurses and the mean scores are presented in Table 5.15.

Table 5.15 Interaction between scenario and the age of the nurses: severity of illness

Scenario	Age	$\bar{X}$	SD
Nursing Home	<40 years	5.74	1.09
ICU		6.43	0.93
Hospice		6.36	1.03
Nursing Home	>40 years	6.18	1.09
ICU		6.37	0.93
Hospice		6.35	1.03

Figure 5.7 Interaction between scenario and age of nurses: severity of illness

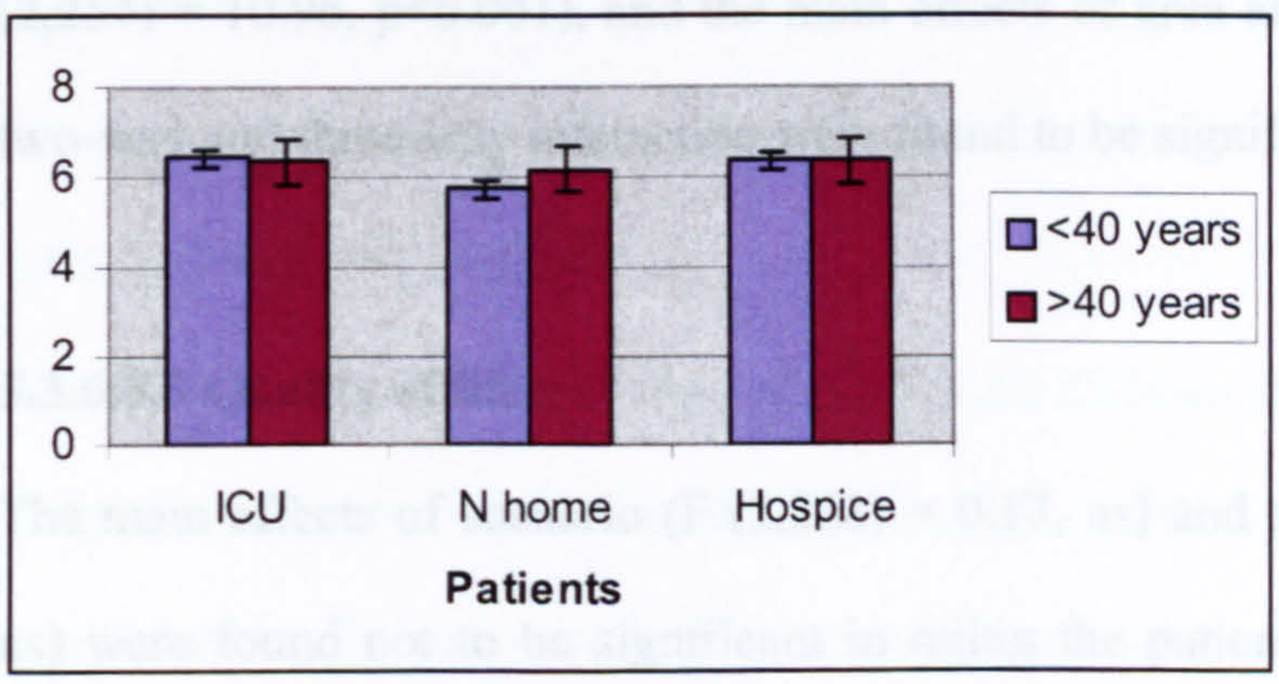


Figure 5.7 indicates that while the older nurses considered the severity of illness of all three patients to be similar, the younger nurses considered the nursing home patient ($\bar{X}$=5.74, SD=1.09) to be significantly more severely ill than either the ICU patient ($\bar{X}$=6.43, SD=0.93) or the hospice patient ($\bar{X}$ 6.36, SD=1.03) ($p<0.05$).

5.3.6.3.2 Level of distress

The main effect of scenario showed significant differences in the level of distress of the patients. (F (2,270) = 11.01, p< 0.001) with post-hoc comparisons indicating that the level of distress of the hospice patient ($\bar{X}$=6.23, SD=1.01) to be greater than that of the ICU patient ($\bar{X}$=5.86, SD=1.41) and the nursing home patient ($\bar{X}$=5.59, SD=1.46). Differences were not found between the ICU patient and the nursing home patient. The main effect of area was not found to be significant (F (2,135 = 1.42, ns) and no significant interaction was found between the clinical area of the nurse and the scenario. Adding religiosity as an additional between subjects factor did not change the main effect of scenario F (2,238) = 8.79, p<0.001) but the main effects of area and religiosity were not found to be significant. Adding age also did not change the main effect of scenario (F (2,254) = 10.96, p<0.001), and the main effects of area and age and none of the two-way and three-way interaction were found to be significant.

5.3.6.3.3 Quality of life

The main effects of scenario (F (2,268) = 0.17, ns) and area (F (2,134) = 0.12, ns) were found not to be significant in rating the patient's quality of life, and these main effects were not changed by adding religiosity or age as additional between subjects factors However, the main effect of religiosity was shown to be significant (F (1,121) = 6.37, p<0.05), with post-hoc comparisons indicating that the nurses with some religious beliefs ($\bar{X}$=2.50, SD=1.19) rated the quality of life more highly than the nurses with no religious beliefs ($\bar{X}$=1.87, SD=1.19). The main effect of age, and none of the two-way or three-way interactions were found to be significant

5.3.6.3.4 Severity of symptoms

The main effect of scenario showed significant differences in the severity of the symptoms of the patients (F (2,270) = 12.71, p< 0.001) with post-hoc comparisons indicating lower level of distress in the nursing home patient ($\bar{X}$=5.43, SD=1.50) than the ICU patient ($\bar{X}$=5.89, SD=1.49) (p < 0.01) and the hospice patient ($\bar{X}$=6.06, SD=1.21) (p<0.001). Differences were not found between the nursing home patient and the hospice patient. No significant interaction was found for the main effect of area or between the clinical area of the nurse and the scenario. Adding religiosity as an additional between subject factor did not change the main effect of scenario (F (2,244) = 8.43, p<0.001), nor did adding age (F (2,260) = 4.82, p<0.01), but the main effects of area religiosity and age, and none of the two-way and three-way interactions were found to be significant.

5.3.6.3.5 Patient's desire to die

The main effect of scenario showed significant differences in the ratings for the patient's perceived desire to die (F (2,270) = 4.90, p< 0.05). Post-hoc comparisons indicated that desire to die for the nursing home patient ($\bar{X}$=5.41, SD=0.75) was considered to be stronger than that of the hospice patient ($\bar{X}$=5.75, SD= 0.79) (p<0.05). Differences were not found between the ICU patient and the nursing home patient or the hospice patient. The main effect of area was also found to be significant (F (2,135) = 5.92, p< 0.05) with post-hoc comparisons indicating significant differences between the nursing home nurses ($\bar{X}$=5.96, SD=1.11) and the hospice nurses ($\bar{X}$=5.19, SD=1.11) (p<0.05). No

significant interaction was found for the main effect of area or between the clinical area of the nurse and the scenario.

When religiosity was added as an additional between subjects factor, the main effect of scenario was not changed ($F(2,244) = 3.91$, $p<0.05$), but the main effects of area and religiosity, and none of the two-way and three-way interactions were found to be significant. Adding age did not change the main effect of scenario ($F(2,260) = 4.82$, $p<0.01$), but the main effect of area became significant ($F(2,130) = 5.70$, $p<0.01$). Post-hoc comparisons showed the nursing home nurses ($\bar{X}=5.96$, SD=1.11) to believe more strongly that the patients wanted to die than the hospice nurses ($\bar{X}=5.20$, SD=1.11) ($p<0.01$). None of the two-way and three-way interactions were found to be significant.

5.3.6.4 Correlations and Stepwise Multiple Regression: TPB variables

Using SPSS, correlations among the TPB components were calculated, and stepwise multiple regressions of behavioural intentions on to the TPB components were computed for nurses from each clinical area and each patient. In stepwise regression, the order that predictors are entered into the model is based on mathematical criterion. The predictor with the highest correlation with the outcome is first retained in the model, and then predictors that account for the most new variance are added and retained if they make a significant contribution to the predictive power of the model. The stepwise method is appropriate for exploratory model building where there is not a sound theoretical literature available (Field, 2005), and is therefore a suitable method of regression for this study.

5.3.6.4.1 The nursing home patient

Table 5.16 shows the correlations among TPB components for the ICU nurses and the nursing home patient.

Table 5.16 Correlations among TPB components for the ICU nurses and the nursing home patient (N = 42)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.39*	0.53**	0.72**	-0.70**	0.57**	0.47**	-0.72**	0.00	-0.63
BE		0.60**	0.43**	-0.36*	0.48**	0.29	-0.47**	0.70	-0.11
CB			0.58*	-0.41**	0.62**	0.50**	-.66**	0.07	-0.19
ATTP				-0.79**	0.50**	0.66**	-0.77**	-0.20	0.06
ATTA					-0.43**	-0.55**	0.63**	0.66	-0.01
NB						0.46**	-0.61**	0.26	0.09
SN							-0.59**	-0.09	0.16
MN								-0.08	-0.03
PBC 1									0.21

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the ICU nurses pro-euthanasia attitudes ($r = 0.72$, $p<0.001$), moral norms ($r = -0.72$, $p<0.001$) and anti-euthanasia attitudes ($r = -0.70$, $p<0.001$) were most strongly related to behavioural intentions towards the nursing home patients. Increasing pro-euthanasia attitudes were associated with increasing intentions to administer a LDM. Increasing moral norms and anti-euthanasia attitudes were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the ICU nurses one predictor, a positive attitude towards administering a lethal dose of medication to the nursing home patient accounted for a significant proportion of the variance ($R^2 = 0.50$, $F(1,38) = 38.38$, $p<0.001$). The inclusion of normative beliefs into

step 2 resulted in an additional 0.06 of the variance being explained (F (1, 37) = 5.16, p<0.05). The two predictors together explain 0.54 of the variance (F (2, 37) = 23.87, p<0001) and these findings are summarised in Table 5.17.

Table 5.17 Regressions of behavioural intentions on to pro euthanasia attitudes, and normative beliefs: ICU nurses and the nursing home patient

Step		**Unstandardized Coefficients**		**Standardized Coefficients**
		B	Std. error	β
1	Pro attitude	0.68	0.11	0.71***
2	Pro attitude	0.55	0.12	0.57***
	Normative belief	0.05	0.2	0.28*

Table 5.18 shows the correlations among TPB components for the nursing home nurses and the nursing home patient.

Table 5.18 Correlations among TPB components for the nursing home nurses and the nursing home patient (N = 44)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.66**	0.55**	0.68**	-0.63**	0.44**	0.54**	-0.66**	0.07	-0.01
BE		0.62**	0.59**	-0.57**	0.39**	0.41**	-0.55**	0.03	-0.02
CB			0.53**	-0.47**	0.31*	0.48**	-0.58**	0.15	0.24
ATTP				-0.86**	0.51**	0.60**	-0.79**	0.10	0.22
ATTA					-0.40**	-0.52**	0.74**	-0.06	-0.17
NB						0.59**	-0.41**	0.15	0.32*
SN							-0.49**	0.04	.53**
MN								0.14	-0.06
PBC 1									0.26

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the nursing home nurses, pro-euthanasia attitudes ($r = 0.67$, $p<0.001$) behavioural beliefs ($r = 0.66$, $p<0.001$) and moral norms ($r = -0.66$, $p<0.001$) were most strongly related to behavioural intentions towards the nursing home patient. Increasing pro-euthanasia attitudes and behavioural beliefs were associated with increasing intentions to administer a LDM but increasing moral norms were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the nursing home nurses one predictor, moral norm accounted for a significant proportion of the variance ($R^2 = 0.46$, $F(1,42) = 35.68$, $p<0.001$). The inclusion of behavioural beliefs into step 2 resulted in an additional 0.11 of the variance being explained ($F(1, 41) = 10.10$, $p<0.01$). The two predictors together explain 0.55 of the variance ($F(2, 43) = 26.76$, $p<0001$) and these findings are summarised in Table 5.19.

Table 5.19 Regressions of behavioural intentions on to moral norms, and behavioural beliefs: nursing home nurses and the nursing home patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Moral norm	-0.70	0.12	-0.68***
2	Moral norm	-0.47	0.13	-0.45**
	Behavioural belief	0.07	0.02	0.40**

Table 5.20 shows the correlations among TPB components for the hospice nurses and the nursing home patient.

Table 5.20 Correlations among TPB components for the hospice nurses and the nursing home patient (N = 53)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.56**	0.65**	0.76**	-0.68**	0.75**	0.59**	-0.69**	-0.19	0.35*
BE		0.64**	0.41**	-0.43**	0.72**	0.47**	-0.43**	-0.04	0.24
CB			0.63**	-0.68**	0.74**	0.52**	-0.46**	-0.07	0.19
ATTP				-0.92**	0.70**	0.63**	-0.79**	-0.28*	0.39**
ATTA					0.76**	-0.65**	0.68**	0.23	-0.35*
NB						0.67**	-0.53**	-0.14	0.24
SN							0.71**	-0.07	0.29*
MN								0.12	-0.40**
PBC 1									0.09

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the hospice nurses, pro-euthanasia attitudes ($r = 0.76$, $p<0.001$) normative beliefs (0.75, $p<0.01$) and moral norms ($r = -0.69$, $p<0.001$) were most strongly related to behavioural intentions towards the nursing home patient. Increasing pro-euthanasia attitudes and normative beliefs were associated with increasing intentions to administer a LDM but increasing moral norms were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the hospice nurses one predictor, pro euthanasia attitude accounted for a significant proportion of the variance ($R^2 = 0.73$, $F(1,46) = 124.24$, $p<0.001$). The inclusion of normative beliefs into step 2 resulted in an additional 0.04 of the variance being explained ($F(1, 45) = 6.78$, $p<0.01$). A further 0.03 of the variance was explained with the inclusion of a third predictor, subjective norms, in step 3, ($F(1,44) = 7.28$, $p<0.01$). The three predictors together explain 0.79 of the variance ($F(3, 44) = 58.12$, $p<0001$) and these findings are summarised in Table 5.21.

Table 5.21 Regressions of behavioural intentions on to pro euthanasia attitudes, normative beliefs and subjective norms: hospice nurses and the nursing home patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.95	0.09	0.85***
2	Pro attitude	0.74	0.12	0.66***
	Normative beliefs	0.07	0.02	0.40**
3	Pro attitude	0.93	0.13	0.83***
	Normative beliefs	0.07	0.02	0.35**
	Subjective norms	-0.34	0.13	-0.29**

5.3.6.4.2 The ICU patient

Table 5.22 shows the correlations among TPB components for the ICU nurses and the ICU patient.

Table 5.22 Correlations among TPB components for ICU nurses and ICU patient (N = 42)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.31*	0.33*	0.65**	-0.61**	0.43**	0.58**	-0.64**	0.19	0.32*
BE		0.56**	0.37*	-0.29	0.31*	0.22	-0.34*	0.09	0.17
CB			0.44**	-0.32*	0.58**	0.46**	-0.47**	0.07	0.19
ATTP				-0.81**	0.64**	0.60**	-0.69**	-0.10	0.22
ATTA					-0.55**	-0.59**	0.74**	-0.42	-0.28
NB						0.57**	-0.48**	0.08	0.22
SN							-0.60**	0.01	0.25
MN								-0.15	-0.42**
PBC 1									0.35*

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the ICU nurses pro-euthanasia attitudes (r = 0.65, p<0.001) moral norms (r = -0.65, p<0.001) and anti-euthanasia attitudes (r = -0.61, p<0.001)

were most strongly related to behavioural intentions towards the ICU patient. Increasing pro-euthanasia attitudes were associated with increasing intentions to administer a LDM but increasing moral norms and anti-euthanasia attitudes were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the ICU nurses one predictor, a positive attitude towards administering a lethal dose of medication to the ICU patient accounted for a significant proportion of the variance ($R^2 = 0.42$, $F(1,40) = 28.67$, $p<0.001$). The inclusion of moral norms into step 2 resulted in an additional 0.07 of the variance being explained ($F(1, 39) = 5.26$, $p<0.05$). The two predictors together explain 0.46 of the variance ($F(2,29) = 18.49$, $p<0001$) and these findings are summarised in Table 5.23.

Table 5.23 Regressions of behavioural intentions on to pro euthanasia attitudes and moral norms: ICU nurses and the ICU patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.75	0.14	0.65***
2	Pro attitude	0.46	0.18	0.40**
	Moral norms	-0.36	0.16	-0.36*

Table 5.24 shows the correlations among TPB components for the nursing home nurses and the ICU patient.

Table 5.24 Correlations among TPB components for the nursing home nurses and the ICU patient (N = 44)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.54**	0.35*	0.71**	-0.65**	0.54**	0.66**	-0.70**	0.26	0.16
BE		0.65**	0.55**	-0.45**	0.34*	0.38*	-0.44**	0.14	0.02
CB			0.53**	-0.43**	0.24	0.34*	-0.38*	0.09	0.12
ATTP				-0.71**	0.48**	0.67**	-0.64**	0.40**	0.25
ATTA					-0.44**	-0.56**	0.49**	-0.21	-0.22
NB						0.75**	-0.57**	0.42**	0.44**
SN							-0.67**	0.38*	0.40**
MN								-0.29	-0.13
PBC 1									0.34*

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the nursing home nurses, pro-euthanasia attitudes ($r = 0.71$, $p<0.001$), moral norms ($r = -0.54$, $p<0.001$) and subjective norms ($r = 0.66$, $p<0.001$) were most strongly related to behavioural intentions towards the ICU patient. Increasing pro-euthanasia attitudes and subjective norms were associated with increasing intentions to administer a LDM but increasing moral norms were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the nursing home nurses one predictor, a positive attitude towards administering a lethal dose of medication to the ICU patient accounted for a significant proportion of the variance ($R^2 = 0.54$, $F(1,40) = 46.25$, $p<0.001$). The inclusion of subjective norms into step 2 resulted in an additional 0.09 of the variance being explained ($F(1, 39) = 9.56$, $p<0.01$). The two predictors together explain 0.61 of the variance ($F(2, 39) = 32.86$, $p<0001$) and these findings are summarised in Table 5.25.

Table 5.25 Regressions of behavioural intentions on to pro euthanasia attitudes and subjective norms: nursing home nurses and the ICU patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.75	0.11	0.73***
2	Pro attitude	0.47	0.13	0.46***
	Subjective norms	0.51	0.17	0.41**

Table 5.26 shows the correlations among TPB components for the hospice nurses and the ICU patient.

Table 5.26 Correlations among TPB components for the hospice nurses and the ICU patient (N = 53)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.42**	0.66**	0.77**	-0.72**	0.52**	0.56**	-0.66**	-0.31*	0.33*
BE		0.61**	0.54**	-0.51**	0.68**	0.46**	-0.52**	-0.12	0.18
CB			0.66**	-0.69**	0.66**	0.56**	-0.65**	-0.11	0.19
ATTP				0.88**	0.74**	0.73**	-0.80**	-0.31*	0.33*
ATTA					-0.67**	-0.76**	0.73**	0.16	-0.34*
NB						0.61**	-0.66**	-0.17	0.26
SN							-0.68**	-0.15	0.29*
MN								0.13	-0.43**
PBC 1									0.25

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the hospice nurses pro-euthanasia attitudes (r = 0.77, p<0.001), anti-euthanasia attitudes (r = -0.71, p<0.001), moral norms (r = -0.66, p<0.001) and control beliefs (r = 0.66, p<0.001) were most strongly related to behavioural intentions towards the ICU patient. Increasing pro-euthanasia attitudes and control beliefs were associated with increasing intentions to administer a LDM.

Increasing anti-euthanasia attitudes and moral norms were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the hospice nurses only one predictor, a pro euthanasia attitude towards administering a LDM accounted for a significant proportion of the variance ($R^2 = 0.58$, $F(1,46) = 62.2$, $p<0.001$). These findings are summarised in Table 5.27.

Table 5.27 Regressions of behavioural intentions on to pro euthanasia attitudes: hospice nurses and the ICU patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.69	0.09	0.76***

5.3.6.4.3 The hospice patient

Table 5.28 shows the correlations among TPB components for the ICU nurses and the hospice patient.

Table 5.28 Correlations among TPB components for the ICU nurses and the hospice patient (N = 42)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.37*	0.39*	0.68**	-0.52**	0.54**	0.40**	-0.42**	-0.01	0.28
BE		0.56**	0.44**	-0.06	0.38*	0.20	-0.45**	0.05	0.19
CB			0.50**	-0.18	0.57**	0.47**	-0.47**	0.02	0.31*
ATTP				-0.65**	0.57**	0.51**	-0.69**	-0.18	0.23
ATTA					-0.32*	-0.34*	0.61**	0.21	-0.13
NB						0.62**	-0.47**	0.14	0.24
SN							-0.37*	0.06	0.27
MN								0.15	-0.27
PBC 1									0.40**

* = $p<0.05$ ** = $p<0.01$

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the ICU nurses pro-euthanasia attitudes ($r = 0.68$, $p<0.001$), normative beliefs ($r = 0.54$, $p<0.001$) and anti-euthanasia attitudes ($r = -0.52$, $p<0.001$) were most strongly related to behavioural intentions towards the hospice patient. Increasing pro-euthanasia attitudes and normative beliefs were associated with increasing intentions to administer a LDM, but increasing anti-euthanasia attitudes were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the ICU nurses only one predictor, a positive attitude towards administering a lethal dose of medication to the hospice patient accounted for a significant proportion of the variance (R^2 =

0.46, F (1,40) = 33.97, p<0.001), and these findings are summarised in Table 5.29.

Table 5.29 Regressions of behavioural intentions on to pro euthanasia attitudes: ICU nurses and the hospice patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.68	0.12	0.68***

Table 5.30 shows the correlations among TPB components for the nursing home nurses and the hospice patient.

Table 5.30 Correlations among TPB components for the nursing home nurses and the hospice patient (N = 44)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.57**	0.62**	0.76**	-0.72**	0.67**	0.59**	-0.67**	0.16	0.06
BE		0.81**	0.61**	-0.63**	0.48**	0.44**	-0.59**	0.03	-0.00
CB			0.69**	-0.65**	0.54**	0.56**	-0.66**	0.18	0.17
ATTP				-0.89**	0.69**	0.73**	-0.80**	0.18	0.15
ATTA					-0.62**	-0.70**	0.80**	-0.01	-0.12
NB						0.62**	-0.62*	0.34*	0.24
SN							-0.69**	0.21	0.33*
MN								0.02	-0.01
PBC 1									0.09

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the nursing home nurses, pro-euthanasia attitudes (r = 0.76, p<0.001), anti-euthanasia attitudes (r = -0.72, p<0.001) and moral norms (r = -0.57, p<0.01) were most strongly related to behavioural intentions towards the hospice patient. Increasing pro-euthanasia attitudes were associated with increasing intentions to

administer a LDM, but increasing anti-euthanasia attitudes and moral norms were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the nursing home nurses one predictor, a positive attitude towards administering a lethal dose of medication to the hospice patient accounted for a significant proportion of the variance ($R^2 = 0.59$, $F(1,41) = 59.73$, $p<0.001$). These findings are summarised in Table 5.31.

Table 5.31 Regressions of behavioural intentions on to pro euthanasia attitudes: nursing home nurses and the hospice patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.80	0.10	0.77***

Table 5.32 shows the correlations among TPB components for the hospice nurses and the hospice patient.

Table 5.32 Correlations among TPB components for the hospice nurses and the hospice patient (N = 53)

	BE	CB	ATTP	ATTA	NB	SN	MN	PBC1	PBC2
BI	0.59**	0.50**	0.75**	-0.66**	0.62**	0.44**	-0.59**	-0.04	0.52**
BE		0.61**	0.51**	-0.39**	0.66**	0.26	-0.38**	-0.99	0.48**
CB			0.64**	-0.60**	0.66**	0.38**	-0.57**	-2.21	0.21
ATTP				-0.84**	0.74**	0.67**	-0.80**	-0.17	0.51**
ATTA					-0.74**	-0.61**	0.82**	0.18	-0.38**
NB						0.56**	-0.61**	-0.11	0.53**
SN							-0.70**	-0.13	0.29*
MN								0.13	-0.35*
PBC 1									0.17

* = p<0.05 ** = p<0.01

BI = behavioural intention BE = behaviour beliefs CB = Control beliefs
ATTP = pro-euthanasia attitude ATTA = anti=euthanasia attitude NB = Normative beliefs
SN = Subjective norm MN = Moral Norm
PCB 1(2) = Perceived behavioural control measures 1 & 2

Amongst the hospice nurses, pro-euthanasia attitudes ($r = 0.75$, $p<0.001$), anti-euthanasia attitudes ($r = -0.66$, $p<0.001$) and normative beliefs ($r = 0.62$, $p<0.001$) were most strongly related to behavioural intentions towards the hospice patient. Increasing pro-euthanasia attitudes and normative beliefs were associated with increasing intentions to administer a LDM, but increasing anti-euthanasia attitudes were associated with decreasing intentions to administer a LDM.

Step 1 of the multiple regression showed that amongst the hospice nurses one predictor, a positive attitude towards administering a lethal dose of medication to the hospice patient accounted for a significant proportion of the variance ($R^2 = 0.56$, $F(1,49) = 61.48$, $p<0.001$). The inclusion of behavioural beliefs into step 2 resulted in an additional 0.06 of the variance being explained ($F(1, 48) = 7.72$, $p<0.01$). The two predictors together explain 0.62 of the variance ($F(2, 48) = 38.81$, $p<001$) and these findings are summarised in Table 5.33.

Table 5.33 Regressions of behavioural intentions on to pro euthanasia attitudes and behavioural beliefs: hospice nurses and the hospice patient

Step		Unstandardized Coefficients		Standardized Coefficients
		B	Std. error	β
1	Pro attitude	0.83	0.11	0.75***
2	Pro attitude	0.67	0.14	0.61***
	Behavioural beliefs	0.06	0.02	0.29**

5.3.6.4.4 Stepwise multiple regression summary

The beta coefficients as predictors of intention for each group of nurses and each patient summarised in Table 5.34. As it is recognised that the performance of multiple tests may result in an elevated risk of type I error, therefore significant results should not be over interpreted.

Table 5.34 Summary of beta coefficients as predictors of intention for each group of nurses and each patient

Patient	Nurses	BI	BB	CB	ATTPRO	ATTANTI	NB	PBC1	PBC2	SN	MN
NH	ICU				0.57***		0.28*				
	NH		0.40**								-0.45**
	Hospice				0.83**		0.35**			-0.29**	
ICU	ICU				0.40**						-0.36*
	NH				0.46***					0.41**	
	Hospice				0.76***						
Hospice	ICU				0.68***						
	NH				0.77***						
	Hospice		0.29**		0.61***						

$p < 0.05$ = * $p < 0.01$ = ** $p < 0.001$ = ***

5.3.7 Discussion

This study identified a range of factors that may influence nurses' attitudes to euthanasia and in some instances these varied depending upon the nurses' clinical area. As the TPB has not been applied to any previous studies of nurses' attitudes to euthanasia, direct comparisons cannot be made across the TPB variables with the findings in the published studies. Furthermore, with the exception of Kitchener (1998), no other studies investigate the influence of clinical speciality in the findings using the same measures. However, some general comparisons can be made between the findings of this study and those of nurses in single specialities (Asch, 1996; Kuuppelomäki, 2000; Verpoort, Gastmans, & de Casterle, 2004; Wilkes et al., 1993).

While the EIS showed that nurses from each clinical area held similar negative beliefs about euthanasia, a not unexpected finding was that nurses without any religious beliefs had significantly more positive attitudes than those without any religious beliefs. Religious beliefs were also found to influence nurse attitudes to euthanasia in Studies 1 and 3 of this thesis. In Study 2, the results from the Internet survey showed nurses with strong religious beliefs were more likely to demonstrate negative attitudes to euthanasia and have lower EIS scores than those with moderate or no religious beliefs. In this study, religiosity was also found to be a significant across four TPB variables, namely, pro and anti-euthanasia attitudes, subjective norms and moral norms. Thus, these findings correspond with other studies where religiosity has been shown to be a significant variable in a number of other studies investigating nurses' attitudes to

euthanasia (Bittel et al., 2001; Davis et al., 1993; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Richardson, 1994; Ryynanen et al., 2002).

Significant differences were found in the nurses' attitudes towards the patients. Their intention to perform euthanasia, and the nurses' beliefs about euthanasia for example, being able to relieve suffering and promoting autonomous decision making, were stronger towards the hospice patient. However, the participants did rate the hospice patient's level of distress as being significantly greater than the other two patients. The hospice patient was terminally ill with ovarian cancer, and it is possible that the participants viewed this patient as having a more distressing illness. Some evidence for this can be found in the literature in studies which show nurses to have negative attitudes towards patients terminally ill with cancer (Grosnek, 1981; Roman, Sorribes, & Ezquerro, 2001).

While indicating that the nursing home patient had a stronger desire to die, the nurses rated her severity of illness and symptoms and level of distress as lower that the ICU and hospice patient. Weaker subjective norm scores for the nursing home patient also indicated that the nurses perceived less social pressure to perform euthanasia on this patient. Steps were taken to match the descriptions of the patients in the development of the scenarios, but the clinical details were accurate for each condition. Therefore, the findings indicate that even amongst nurses showing a positive attitude towards euthanasia, it is not necessarily considered to be the correct course of action for every terminally ill patient.

Significant differences were found between the ICU nurses and the hospice nurses across the TPB variables, but differences between the nursing home nurses and the other two groups were not detected. Age was only shown to be significant for control beliefs, normative beliefs and positive attitudes to euthanasia. In addition to having significantly stronger pro-euthanasia attitudes, the younger nurses (under 40 years of age) had higher control beliefs scores than those over 40 years. In published international studies, age has been found to be significant factor in that younger nurses tend to demonstrate more positive attitudes to euthanasia than older nurses (Kitchener, 1998; Kuhse & Singer, 1993; Ryynanen et al., 2002), but this does not adequately explain the higher control belief scores. In this study, the younger nurses believed that having guidelines to follow, the agreement of the multidisciplinary team and the patient's family, being directly involved in the patent's care and being convinced that the patient wanted to die would make it easier to administer euthanasia. These differences may be accounted for by nursing experience, as overall the younger nurses were less experienced than the older nurses, and subsequently could have less confidence in making judgments without guidelines and the agreement of other colleagues. Further evidence to support this claim is that the ICU nurses had stronger control beliefs than both the nursing home and hospice nurses, but the ages of the ICU nurses were found to be significantly lower than those that worked both in hospices and nursing homes.

The ICU nurses also perceived stronger social pressure to administer euthanasia as their subjective norm scores were significantly higher than the hospice nurses. The strength of the nurses' religious beliefs and age were also of importance

here, as the ICU nurses were significantly less religious and younger than the hospice nurses, and younger nurses with no religious beliefs were found to have stronger pro-euthanasia attitudes and subjective norms than those who held some religious beliefs.

The hospice nurses held stronger anti-euthanasia attitudes (and corresponding weaker pro-euthanasia attitudes) than the ICU nurses and nursing home nurses. Other studies of nurses working in one defined practice area have show critical nurses to be more supportive of euthanasia (Asch, 1996), than those in oncology and palliative care (Pierce, 1999; Wilkes & White, 1995). However, a weakness in each of these studies is confusion in the use of the terms active and passive euthanasia and this limits the conclusions that can drawn from the studies. In the comparative study of Australian nurses working in different clinical specialities, Kitchener (1998), found that nurses who worked in critical care and mental health were more willing to be involved in acts of euthanasia than those who work in aged or palliative care. The term critical care used in Kitchener's (1998) study can describe nurses working in a variety of clinical setting such as coronary care units, neurological units and accident and emergency units. Similarly palliative care nursing is carried out in hospital wards, nursing homes, and in the community as well as in specialist hospices. Hence, the specific practice areas are not clearly defined which is significant as the scope of practice for nurses and their involvement in multidisciplinary teams differ across these places of work. The strength of this TPB study therefore, is that comparisons can be made between the nurses working in different clinical areas as the same

measures were used for each group and the nurses came from one of three clearly defined areas of practice.

The hospice nurses were also shown to have stronger moral norms than the ICU nurses. Religious beliefs were influential here as those nurses who held religious beliefs had stronger anti-euthanasia attitudes and moral norms than the nurses declaring no religious beliefs. This is an expected finding as the hospice movement is against euthanasia as an option for terminally ill individuals and nurses choosing to work in this clinical area are likely to agree with the hospice philosophy of care (Farsides, 1998).

However, a more surprising finding is that the first item measuring perceived behavioural control showed that the hospice nurses felt they had more control over administering euthanasia to patient, but the second measure indicated that the ICU nurses agreed more strongly than the hospice nurses that if they wanted to they could administer euthanasia to a patient. The environment and nature of nursing is different in a hospice and ICU, and this may have influenced the way that the nurses interpreted this question. Patients in the ICU have several intravenous lines that can be used to administer drugs, therefore, in one sense it would be easier practically for an ICU nurse to administer euthanasia than a hospice nurse where the patients would be less likely (and the nurses less familiar) with this form of drug administration. However, the two single items to measure perceived behavioural control were used because the scale for measuring perceived behavioural control was unreliable and this finding should thus, be treated with some caution.

Generally the nurses did not view their own patient (that is the patient from their own clinical area) differently to the other patients, except with regard to intention, normative beliefs and subjective norms, and only when religiosity was accounted for. The nursing home nurses were more likely to want to administer euthanasia to the ICU patient and the hospice patient, while showing less intention to do so to their own patient. Similarly amongst the nurses with no religious beliefs, the nursing home nurses had lower normative beliefs and subjective norms towards their own patient than to the ICU and nursing home patients.

While the nursing home nurses were significantly more experienced in their speciality than the ICU nurses, the length of experience was similar to the hospice nurses therefore, this is unlikely to be of significance. However, patients in nursing homes are not acutely ill and not necessarily classed as terminally ill. Despite efforts to change perceptions of hospice care away from 'homes for the dying', to palliative care treatment centres, this understanding of hospices as being places where people go to die still persists even amongst nurses. Patients by definition must be critically ill to be admitted to an ICU, where the mortality rate can be as high as 25% (NCEPOD, 2005). Therefore, the nursing home nurses may view the hospice patients and ICU patients as either being closer to death or more critically ill than their own and hence more suitable patients for euthanasia.

Across all the scenarios, intentions were most strongly predicted by nurses holding a positive attitude to euthanasia, but anti-euthanasia attitudes, perceived

behavioural control and moral norms were not found to be significant predictors. A meta-analysis of meta analyses conducted by Conner and Sparks (2005) showed relationships between intention and behaviour and between attitudes and intention to equate to large effect sizes. The finding in this study partly concur with this in that a positive attitude to euthanasia most strongly predicted actions, but a negative attitude did not. This was particularly noticeable for the hospice patient as amongst the ICU nurses (46% of variance explained) and nursing home nurses (59% of variance explained) holding a positive attitude towards euthanasia was the sole predictor of intention to administer euthanasia to this patient. Amongst the hospice nurses a positive attitude was also the only predictor of intention towards the ICU patient (46% of variance explained).

Other TPB variables predicting intention varied across the patients and the nurses. Conner and Sparks (2005) state that regression analysis of data in the meta analysis of meta-analyses indicated that attitude, subjective norm and perceived behavioural control explained 37% of the variance in intentions, but the findings from this study differ from this. In addition to a pro-euthanasia attitude, amongst the ICU nurses, normative beliefs were a predictor of intention for the nursing home patient (54% of variance explained), and moral norms for the ICU patient (46% of variance explained). Therefore, the perceptions of the other members of the multidisciplinary team, the patient and her family influenced the ICU nurses intentions towards the nursing home patient, but the ICU nurses' own perception of moral correctness influenced their intentions towards their own patient. Normative beliefs (together with a pro-euthanasia attitude and subjective norms) were also identified as predicting intention for the

hospice nurses (79% of variance explained) to administer euthanasia to the nursing home patient. But behavioural beliefs together with a pro-euthanasia attitude explained 62% of the variance of intention for the hospice nurses towards their own patient. Therefore, for the hospice nurses, their underlying beliefs about suffering, pain, control and respecting the patient's autonomy together with pro-euthanasia attitudes were of importance in predicting their intentions towards their own patient.

The predictors of intention for the nursing home nurses towards their own patient differed from the nurses from the other clinical areas as moral norms together with behavioural beliefs accounted for 55% of the variance. This was the only group where a pro-euthanasia attitude was not found to be significant. The nursing homes nurses beliefs about the morality of euthanasia and their beliefs about euthanasia being able to relieve suffering and promoting autonomous decisions were of more importance in predicting intention. However, these predictors were not found to be significant amongst the nursing home nurses intentions towards the other patients. This would seem to suggest that the nursing home nurses viewed their own patients differently to the ICU and hospice patients.

5.3.8 Limitations of the study

The population from which the sample is drawn is not representative of the general population, and the number of participants was modest. Although the nursing homes and hospices used in the study were randomly selected, the participants were not. All eligible participants were identified in the clinical areas

and it is not known how many having looked at the questionnaire decided not to participate. Therefore, there may be some element of selection bias.

As discussed by Conner and Sparks (2005), the TPB assumes that all behaviour is rational and little attention is paid to the role of the emotions. A controversial issue in healthcare ethics (and nursing ethics in particular) is the role that emotion does or should take in ethical reasoning. Care based nursing ethics theories for example reject the rational (male) approach of traditional ethical theories in favour of a feminist interpretation emphasising care and responsiveness in human relationships (Gilligan, 1982; Kuhse, 1987; Noddings, 1984). While this approach is not without its critics (Kuhse, 1987), it is an influential theory in nursing ethics and thus, the application of the TPB may be viewed by care ethicists as lacking sensitivity to investigate ethical issues.

A further limiting factor is the use of the TPB not only to predict intentions of behaviour directed towards others (the patients), but also to investigate an act that in the UK is currently unlawful. Therefore, no hypothesis about the nurses' intentions to perform acts of euthanasia can be tested. Nonetheless, the objectives of the study were to use the TPB to examine the attitudes of nurses working in ICU, hospices and nursing homes to euthanasia and to investigate if nurses working in different clinical areas held similar attitudes to euthanasia. The TPB has been shown to reliably provide predictive power of behaviour and intentions, therefore, the model has been used appropriately to achieve the objectives of the study.

5.4 Summary

The findings in Study 4 showed that across all three patients a positive attitude to euthanasia was the strongest predictor of the all the nurses intentions, while anti-euthanasia attitudes, perceived behavioural control and moral beliefs were not found to be significant predictors. Age was only significant for control beliefs and positive attitudes to euthanasia but religiosity was significant across four TPB variables and the EIS, with nurses holding strong religious beliefs demonstrating more anti-euthanasia attitudes than those with moderate or no religious beliefs.

Significant differences were found between the nurses across some of the TPB variables most notably between the ICU nurses and the hospice nurses. The ICU nurses were shown to have stronger control beliefs than both the nursing home and hospice nurses, and weaker anti-euthanasia attitudes than the hospice nurses and stronger perceived behavioural control beliefs for the first measures of this variable. The hospice nurses had correspondingly weaker pro-euthanasia attitudes than then ICU and nursing home nurses, but stronger perceived behavioural control beliefs for the second measure of this variable.

Some differences were found in the way the nurses viewed the patients in that the nursing home nurses were more likely to want to administer euthanasia to the ICU and the hospice patient but less inclined to administer it to their own. Amongst the hospice nurses a positive attitude to euthanasia was the only predictor of intention towards the ICU patient, but amongst the nursing home nurses, moral norms and behaviour beliefs predicted intention towards their own

patient. Differences were also found in the way the nurses rated the patient's levels of distress, the strength of their desire to die, severity of illness and symptoms. Therefore, application of the TPB to investigate UK nurses attitudes to active voluntary euthanasia, revealed similarities and differences in the attitudes held by ICU, hospice and nursing home nurses.

Chapter 6: Summary and discussion

6.0 Aims of the thesis

The principal aim of this thesis was to develop an understanding of the attitudes of nurses working in the UK to active voluntary euthanasia. In the international literature, there are a number studies investigating nurses attitudes to euthanasia (Asch, 1996; Bilsen et al., 2004; Kitchener, 1998; Kuhse & Singer, 1993; Tanida et al., 2002; Teisseyre et al., 2005; van de Scheur & van der Arend, 1998; Verpoort, Gastmans, & de Casterle, 2004; Wilkes et al., 1993; Young & Ogden, 2000). Such international studies give some insight into the attitudes of nurses towards euthanasia, but cultural values together with the status and practice of nursing differ across international boundaries. Furthermore, some of the studies (Bilsen et al., 2004; Kitchener, 1998; van de Scheur & van der Arend, 1998; van der Arend & Remmers-van den Hurk, 1999; Verpoort, Gastmans, & de Casterle, 2004) have been carried out in jurisdictions where euthanasia is permissible in law. For example, Belgium and the Netherlands have both enacted legislation permitting euthanasia, the US state of Oregon permits physician assisted suicide, and euthanasia was also briefly allowed to be administered in the Northern Territory of Australia prior to being overturned by federal law. Thus, the findings in these studies are not necessarily applicable to nurses working in the UK where neither active euthanasia nor physician assisted suicide is lawful. Apart from two limited surveys of UK nurses (Hemmings, 2003; Pyne & Booth, 1995), the views of UK nurses have not been systematically investigated.

The second aim of the thesis was to investigate similarities and differences in attitudes to euthanasia of UK nurses working in differing clinical areas. Nurses caring for dying patients work in a variety of institutional and community based practice areas, which may be part of the National Health System (NHS), run by charities (such as hospices), or belong to the private sector (such as private hospitals, nursing and residential homes). The organisation and delivery of nursing care also varies according to the practice area. For example nurses employed in Intensive Care Units (ICU) in hospitals will be members of large multidisciplinary teams caring for critically ill patients, while nurses in nursing homes typically supervise small teams of unqualified staff in the care of older people needing fundamental nursing care. The impact and significance of differing clinical areas is not clearly demonstrated in the literature as only one study examined the relevance of clinical experience (Kitchener, 1998) but the study reports the views of Australian nurses after active euthanasia was briefly permitted which could have influenced the findings. Other published studies investigate either nurses working in one clinical speciality (Anderson & Caddell, 1993; Asch, 1996; Kuuppelomäki, 2000; Matzo & Schwarz, 2001; Pierce, 1999; Richardson, 1994; Verpoort, Gastmans, & de Casterle, 2004; Wilkes et al., 1993) or compare two clinical specialities (Aranda & O'Conner, 1995; Davis et al., 1995). Subsequently, the association between nursing speciality and attitudes to euthanasia has not been fully examined.

Qualitative and quantitative research designs have been used to examine nurses attitudes to euthanasia, but on the whole, data has been collected either through interviews (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney &

Seibold, 1995), or from questionnaire surveys (Asai et al., 2001; Asch, 1996; Guedj et al., 2005; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Musgrave & Soudry, 2000; Ryynanen et al., 2002; Tanida et al., 2002; Teisseyre et al., 2005). Ethical questions are open to investigation using a variety of research methodologies, but use of research designs other than surveys or questionnaires is not evident in the literature. Hence, the third aim of this thesis was to evaluate research design and data collection methods for investigating ethical questions in clinical practice.

To achieve these three aims, four studies using different research methodologies were conducted to investigate the attitudes of UK nurses to euthanasia. The findings of each study were discussed in their respective chapters, and the aim of this final chapter is to summarise the main findings of each study and drawing them together, consider the implications of the findings for nursing practice. The chapter concludes by acknowledging the limitations of the studies, recommendations for further research in this subject and a concluding summary.

6.1 Summary of findings from the four studies examining nurses' attitudes to euthanasia

Following the summaries of Study 1 (focus group study), Study 2 (the survey) and Study 3 (the Q methodological study), common findings across all 3 studies will be discussed with reference to the literature. Study 4 (the TPB study) focused specifically on the influence of clinical speciality on nurses' attitudes to euthanasia and is therefore, discussed separately.

6.1.1 Study 1: the focus group study

Content analysis of data obtained during three focus group interviews with nurses in an ICU, hospice and nursing home, identified the issues that nurses considered to be important in the euthanasia debate. The advantages of administering euthanasia were considered to be enabling a patient to control their death, have a pain free death, bring an end to suffering, be a cost effective use of resources and cause less distress for the relatives. Four issues were identified as disadvantages of administering euthanasia, namely, that the nurse may be unsure that euthanasia was really what the patient wanted, concerns about external influences on the patient to reach a decision that suspicion might fall upon nurses who administered euthanasia and the negative effect this may have on public confidence in nurses.

Factors nurses would find helpful in administering euthanasia were identified as the need for guidelines and protocols, that the act was lawful, the involvement of the multidisciplinary team and the patient's family in making the decision, the nurse being convinced that it was what the patient wanted, and support for nurses who did administer euthanasia. Patients self administering the drugs was seen to be more preferable that the nurse administering them. Factors that may deter a nurse administering euthanasia were recognized as the nurses' spiritual or moral beliefs, the depth of the nurse's relationship with the patient, acting outwith the law, concerns about how a nurse administering euthanasia might be viewed by colleagues and others, and conflict in the multidisciplinary team caring for the patient.

The nurses believed that carrying out acts of euthanasia was a grave responsibility for a nurse and expressed positive and negative feelings about administering or not administering euthanasia if the patient requested it. It was acknowledged that there could be feelings of regret or guilt for either directly causing the patient's death, or if the nurse chose not to acquiesce to the patient's wishes. Influences on the nurses decision to administer euthanasia included the views of other professionals, including members of the multidisciplinary team, the patient's family and carers, the nurse's family and friends and those with experience of being directly involved in acts of euthanasia. The nurses considered euthanasia could be appropriate for terminally ill patients with conditions such as end stage cardiac failure, cancer, stroke and spinal injuries, as well as for patients with no quality of life, distressing symptoms, pain, or for those who had lost their independence.

6.1.2 Study 2: the survey

In this study, an anonymous Internet based questionnaire was used consisting of questions derived from data collected in Study 1, the Euthanasia Ideology Scale (EIS), and the Moral Judgement Test (MJT). Overall, the participants (registered nurses) neither strongly agreed nor disagreed with the practice of euthanasia, were neutral about never in any circumstance administering a lethal dose of medication and only slightly disagreed with the notion of administering euthanasia if they considered the circumstances were right. However, the strength of the nurses' religious beliefs affected this and those with strong religious beliefs were more likely to demonstrate negative attitudes to euthanasia.

Factor analysis of the data showed a three-factor solution to produce the best-fit explaining 51.81% of the variance. Factor one was labelled 'nurses concerns about administering euthanasia' and overall portrayed negative attitudes to the practice. The second factor 'patient control and suffering' showed more positive attitudes towards euthanasia while factor three 'conditions for administering euthanasia' identified the need for protocols, guidelines and other criteria before they would consider administering euthanasia. Correlation of the factors showed that increasing concerns about administering euthanasia were strongly associated with decreasing emphasis placed upon patient control and the alleviation of suffering. Increasing emphasis on the conditions for administering euthanasia were strongly associated with increasing concerns about patient control and suffering. Increasing issues about the patient being in control and the alleviation of suffering were associated with higher EIS, but increasing concerns about administering euthanasia were associated with lower EIS scores.

Using the MJT, each participant's C-score measuring competence in making moral judgments was calculated. The majority of the sample had scores classified as low (58%) or medium (39%) indicating that the participants only weakly or moderately based their ratings on the moral qualities of the arguments. Concerns about administering euthanasia were associated with lower C-scores, but increasing emphasis on patient control and suffering were associated with increasing C-scores. Increasing C-scores were also associated with increasing EIS scores indicating that the more sophisticated the participants' moral judgment, the more likely they were to hold positive attitudes to euthanasia.

Similarities and differences in attitudes to euthanasia held by nurses working in different practice areas were examined, and across all practice areas concerns about administering euthanasia remained significantly negatively correlated with patient control and suffering. However, conditions for administering euthanasia were related to concerns about administering euthanasia only amongst the palliative care nurses, those in education and for the miscellaneous group. Nurses working in palliative care environments were also less likely to agree with the doctor's actions in the MJT than those working with older adults or in education. Differences were not found in the EIS scores or in nurses' willingness to perform acts of euthanasia.

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The C-score was negatively correlated with factor 1, 'nurses concerns about administering euthanasia, for the hospital and palliative care nurse, those in education, and the miscellaneous group but not amongst the community nurses and those that care for older adults. The C-score and the EIS were also positively correlated amongst the hospital nurses, palliative care nurses, those in education and the miscellaneous group but not amongst the community and older adult nurses. Factor 2, patient control and suffering was positively related to the C sore in the hospital nurses, palliative care nurses and those in education only.

6.1.3 Study 3: a Q methodological study

Nurses working in ICUs, hospices and nursing homes sorted a Q set consisting of items derived from data collected in Study 1. Following analysis with principal component method and Varimax rotation, three understandings of nurses' attitudes to euthanasia were demonstrated representing differing beliefs. These

were; (1) cautiously supportive of euthanasia, (2), against euthanasia, and (3) supportive of patient autonomy. The beliefs differed in their agreement and disagreement with the issues associated with euthanasia, and in their focus on the nurse or patient experience. The nurses who defined factor one were more likely to work in ICUs, have less than 10 years experience in the speciality, be educated to at least diploma level and hold moderate or no religious beliefs. They did not consider euthanasia to be morally wrong, defined as murder, raise conscientious objections or be in conflict with the nurse's role, but thought it important to have strict guidelines to follow, a right to refuse to participate, to be personally involved with the patient and sure it was what the patient wanted.

The nurses defining factor two were strongly anti-euthanasia and would not in any circumstances administer it. They worked in nursing homes and hospices, were more likely to have moderate or strong religious beliefs and the majority had less than 10 years experience in their speciality, although six participants had more than 10 years experience. Half of the participants were educated to diploma or degree level and one held a masters degree, but almost half of this group had no qualifications beyond RGN. In this understanding euthanasia was morally wrong, in conflict with the nurse's role, too big a responsibility for nurses and would reduce public confidence in nurses. Rather than being a means to control distress, decisions about euthanasia were felt to potentially add to the patient's distress.

The nurses defining factor three worked across all three clinical specialities, were more likely to have less than 10 years experience in the speciality, be educated to

at least diploma level and hold moderate religious beliefs. This understanding of euthanasia focused more on the patient experience, and while euthanasia was not considered to be morally wrong, defined as murder or in conflict with the nurse's role there was some doubt about whether the nurse would administer euthanasia or not.

6.1.4 Common findings across Studies 1, 2 and 3

Taken together, this series of studies drawing on different methodologies shows a number of issues that UK nurses consider to be important to the practice of active euthanasia. While the findings of each study can be considered separately as making a contribution to the knowledge base in this area, there are also common findings across studies 1, 2 and 3 which are summarised in table 6.1.

Table 6.1 Common themes from the findings in the focus group, survey and Q methodological study

Themes	Study 1	Study 2	Study 3
The Patient			
Patient choice	✓	✓	✓
Ending suffering	✓	✓	✓
Controlling the death	✓	✓	✓
Competence and autonomy	✓	✓	✓
Inappropriate influences on the patient	✓	✓	✓
Use as a last resort	✓	✓	✓
Patient's family			
Involvement and agreement of family	✓	✓	✓
Conflict between MDT and family	✓	✓	✓
Prevention of distress for the relatives	✓	✓	✓
The Nurse			
Guilt about directly causing the death	✓	✓	✓
Importance of guidelines and protocol	✓	✓	✓
Responsibility for nurses	✓	✓	✓
Negative effect on the public perception of nurses	✓	✓	✓
Personal involvement in the care of the patient	✓	✓	✓
Influence of religious beliefs	✓	✓	✓

Six themes concern the patient experience and three related to the patient's family, but as is shown in the following discussion, several of these are linked. In studies 1, 2 and 3 the importance of respecting patient autonomy and alleviating suffering were important themes and this finding concurs with other published studies (Hemmings, 2003; Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995; Young & Ogden, 2000). Alleviation of suffering is related to the notion of the 'good death' and participation by patients in decisions about their care and treatment is discussed in a report by Age Concern (the UK organisation that works with older people). The report identifies '*to be able to retain control of what happens'* and *not to have life prolonged pointlessly'* (Debate of the Age Health and Care Study Group, 1999, p8) as one of 12 key principles of a good death. The need to maintain dignity in death and avoid suffering is also noted in previous studies (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995), and nurses have been shown to be more likely to demonstrate positive attitudes to euthanasia when faced with patients with intractable suffering (Guedj et al., 2005; Kuuppelomäki, 2000; Ryynanen et al., 2002).

In this thesis, a recurring theme was that euthanasia should only be an option if the patient was suffering and nothing else could be done for them. One of the fundamental principles guiding the care of dying patients is the alleviation of suffering and optimising their quality of life (Cherny, 1996), and Verpoort et al. (2004) argue that Dutch palliative care nurses resolve their conscience about euthanasia when it is seen as the last resort. Anxieties about a possible decline in the provision of palliative care services should euthanasia be an option were

expressed by participants in the focus groups (Study 1). However, this belief was strongly disagreed with by the nurses in the Q methodological study who were cautiously supportive of euthanasia, and even slightly disagreed with by those who opposed euthanasia. Palliative care organisations tend to be firmly opposed to euthanasia (Farsides, 1998), and the slow development of palliative care services in the Netherlands is considered to be as a direct results of the acceptance of active euthanasia (ten Have & Welie, 2005). The concept of palliative care with its emphasis on pain and symptom control and management began in the UK in the 1960s and is subsequently a very well established clinical speciality. The nurses who participated in the studies in this thesis, would therefore, be familiar with this aspect of care and contrary to nurses in countries where palliative care is less well established might have viewed the legalisation of euthanasia as less of a threat. Similar views are expressed by Dignity in Dying (the UK voluntary euthanasia society), which does not see euthanasia as an alternative to palliative care, but suggests that what should be provided are "*all options to dying patients, including access to excellent palliative care and a medically assisted death as a last resort*" (Dignity in Dying, 2004, p8).

In common with other studies of nurses' attitudes to euthanasia (Bittel et al., 2001; Davis et al., 1993; Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995; Ryynanen et al., 2002; Verpoort, Gastmans, & de Casterle, 2004), the importance of patient autonomy was recognised across studies 1, 2 and 3. However, the findings in this thesis revealed the complexities of respecting a patient's autonomy and the need to establish that the patient is competent to make a request for euthanasia. While competency in decision

making is a necessary condition for voluntary euthanasia, the findings in this thesis show UK nurses to have doubts about explicit or implicit influences on the patient who requests euthanasia. Across all three studies, concerns were evident about either the patient being influenced by family members to request euthanasia or a terminally ill patient having the perception of being a burden to their family. The potential for abuse of euthanasia is recognised in a number of studies where terminally ill patients have been described as vulnerable to pressure from relatives (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995). The caring role in nursing while primarily focused on the terminally ill patient also extends further to include family members (National Council for Palliative Care, 2005) and involving family members in decisions about the care and treatment of the patient constitutes good nursing practice (Nursing and Midwifery Council, 2004). Thus, there is a potential for conflict between the patient, their relatives and the multidisciplinary team. An interesting finding in this thesis of UK nurses is that even without euthanasia being lawful, the need to avoid conflict between members of the multidisciplinary team is recognised as this is a noted concern for nurses in countries where euthanasia is lawful (Verpoort, Gastmans, & de Casterle, 2004). Therefore, in this thesis the participants recognised that respecting the autonomous decision of the patient is paramount but that the concept of individual autonomy is complicated by the patient's network of social relationships.

Five themes in Studies 1, 2 and 3 concerned the impact of the administration of euthanasia by nurses on the practice of nursing. Feelings of guilt about directly

causing the death of the patient were evident across Studies 1, 2 and 3 of this thesis. The doctrine of double effect (discussed in Chapter 1) permits the administration of large doses of opiates if (any only if) the intention is to alleviate suffering not to cause the patient's death. Hence, nurses caring for dying patients will administer opiates to patients fully aware that their actions might have contributed to the patient's death. However, the participants' in the focus groups, survey and Q methodological study in this thesis saw a clear distinction between administering opiates which may indirectly cause the patient's death and administration of drugs with the deliberate intention of causing death. While several authors in the philosophical literature, for example Harris (1985), Rachels (1997) and Singer (1993), argue against a distinction between active and passive euthanasia, these arguments are not readily accepted by health professionals. This apparent inconsistency in health professional's reasoning is discussed in the literature, and the argument described in various terms such as 'psychological' (Fletcher et al., 1995), and 'philosophical' (Verpoort, Gastmans, De Bal et al., 2004).

While the nurses in Studies 1, 2 and 3 appear willing to respect the autonomous decisions of patients to request euthanasia, they do not want to personally administer it. This apparent inconsistency is not easy to explain, but may also account for the discrepancy in the literature in the number of nurses who support euthanasia, in comparison to those that would administer it (Asai et al., 2001; Kuhse & Singer, 1993; Richardson, 1994; Tanida et al., 2002). The practice of euthanasia has been shown in previous studies to be viewed as contrary to the nursing values such as caring (Davis et al., 1993; Kuuppelomäki, 2000;

Richardson, 1994; Tanida et al., 2002), and feelings of guilt, anger and fear are recognised amongst nurses who have experienced euthanasia in the Netherlands (Berghs et al., 2005).

Euthanasia has been viewed negatively in the literature and contrary to good nursing practice (Davis et al., 1993; Kuuppelomäki, 2000; Richardson, 1994; Tanida et al., 2002), and concerns about the potential negative effects of nurses practising euthanasia might have on the public perception of nursing was a finding across all three studies in this thesis. Concurrent with previous findings in the international literature, across all three studies the administration of euthanasia was found to be too great a responsibility for nurses (Kuhse & Singer, 1993; Musgrave & Soudry, 2000; Verpoort, Gastmans, & de Casterle, 2004). However, there is evidence that nurses have participated in acts of euthanasia (Bilsen et al., 2004; Kuhse & Singer, 1993; Magnusson, 2002; Spanjer, 1995). None of the studies in this thesis directly asked the participants if they had participated in acts of euthanasia, but the findings from the survey and particularly the Q methodological study do show that some nurses are more willing than others to participate. If at some point in the future nurses in the UK were to administer euthanasia, the findings in this thesis clearly indicate that UK nurses would want to have clear policies and guidelines to follow. In Belgium, where euthanasia is lawful, institutions do have written ethics policies on euthanasia, the majority of which explicitly address the role and responsibilities of nurses (Gastmans et al., 2006b).

The final theme common across Studies 1, 2 and 3 in this thesis was the influence of the participants' religious beliefs. The nurses who participated in the focus groups in Study 1 identified religious beliefs as a deterring factor in administering euthanasia. The survey responses showed that nurses with strong religious beliefs were more likely to demonstrate negative attitudes to euthanasia and have lower EIS scores than those with moderate or no religious beliefs, and the nurses defining the factor named 'against euthanasia' in the Q methodological study were strongly anti-euthanasia and more likely to have moderate or strong religious beliefs. The influence of the strength of the nurses religious beliefs on their attitudes to euthanasia is an expected finding in this thesis as it has been shown to be a significant variable in all previous studies where the correlation between religiosity and attitudes to euthanasia has been examined (Bittel et al., 2001; Davis et al., 1993; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Richardson, 1994; Ryynanen et al., 2002).

Overall, several of the findings from Studies 1, 2 and 3 of this thesis concur with those in the international literature examining nurse's attitudes to euthanasia. The UK nurses are similar to their international colleagues in their concerns about respecting patient autonomy in making choices about death and the alleviation of suffering. The complexities of working within a multidisciplinary team and avoiding conflict with the patient's family were important issues for the participants in these studies, as was the potentially negative effect of the administration of euthanasia by nurses on the nature and practice of nursing. In keeping with other studies in this area, the strength of nurses' religious beliefs was found to be of significance. However, the strength of this thesis rests on the

multi-method approach which revealed the common findings across Studies 1, 2 and 3. Building on the findings from these three studies, a fourth study was undertaken to further investigate UK nurses' attitudes to euthanasia. Using the theory of planned behaviour, this final study focused specifically on the influence of clinical speciality on nurses' attitudes to euthanasia.

6.1.5 Study 4: theory of planned behaviour study

For the final study, attitudes to euthanasia of nurses working in ICUs, hospices and nursing homes and the differences and similarities between these attitudes were investigated. A questionnaire was formulated consisting of three scenarios depicting an ICU, hospice and nursing home patient. Following each scenario a series of items measured the components of the Theory of Planned Behaviour (TPB) and measures of consistency. The questionnaire also included a modified version of the EIS and questions to obtain biographical data. The TPB has been applied to a range of health behaviours (Conner et al., 2001; Conner & McMillan, 1999; McMillan & Conner, 2003; Swanson & Power, 2005), and used in health services research (Dwyer & Williams, 2002; Jenner et al., 2002; Limbert & Lamb, 2002; Watson & Myers, 2001). But, the theory does not appear to have been applied to any studies of attitudes to euthanasia.

The findings in Study 4 showed that across all three patients a positive attitude to euthanasia was the strongest predictor of all the nurses' intentions, while anti-euthanasia attitudes, perceived behavioural control and moral beliefs were not found to be significant predictors. Conner and Sparks (2005) state that previous research shows that some individuals tend to base their intentions solely on

attitudes, while others base intentions on norms across behaviours. Furthermore, in situations where attitudes are strong, perceived behavioural control may be a less reliable predictor of intentions. As euthanasia is controversial in healthcare, it is quite likely that nurses would hold strong attitudes about the subject.

While age was only significant for control beliefs, normative beliefs and positive attitudes to euthanasia, religiosity was significant across five TPB variables. In the literature, younger nurses have been shown have more pro-euthanasia attitudes than younger nurses (Kitchener, 1998; Kuhse & Singer, 1993; Ryynanen et al., 2002), and the findings in Study 4 showed that the nurses under 40 years of age had stronger pro-euthanasia attitudes than those over 40 years. However, age was not found to be significant in the EIS. Also concurrent with the published studies (Bittel et al., 2001; Davis et al., 1993; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Richardson, 1994; Ryynanen et al., 2002), religiosity was a significant variable across five TPB variables including those measuring attitudes and the EIS, with nurses holding strong religious beliefs demonstrating more anti-euthanasia attitudes than those with moderate or no religious beliefs.

Significant differences were found between the nurses across some of the TPB variables most notably between the ICU nurses and the hospice nurses. As the TPB has not been applied to any previous studies of nurses' attitudes to euthanasia, direct comparisons cannot be made across the TPB variables with the findings in the published studies. Furthermore, with the exception of Kitchener (1998), and to a limited extent Davis et al. (1995), and Aranda and O'Conner

(1995), no other studies investigate the influence of clinical speciality in the findings using the same measures. However, some general comparisons can be made between the findings in Study 4 and the studies of nurses in single specialities (Asch, 1996; Kuuppelomäki, 2000; Verpoort, Gastmans, & de Casterle, 2004; Wilkes et al., 1993) and this is discussed in more detail below (see section 6.2).

The ICU nurses were shown to have stronger control beliefs than both the nursing home and hospice nurses, and weaker anti-euthanasia attitudes than the hospice nurses. The hospice nurses had correspondingly weaker pro-euthanasia attitudes than then ICU and nursing home nurses. Differences between the ICU and hospice nurses were also evident in the two measures of perceived behavioural control. The ICU nurses believed more strongly than the hospice nurses that if they wanted to they could administer euthanasia to a patient, but the hospice nurses felt they had more control over administering euthanasia to a patient than the ICU nurses. The higher subjective norm scores in the ICU nurses (in comparison to those of the hospice nurses) showed them to perceive stronger social pressure to administer euthanasia.

Some differences were found in the way the nurses viewed the patient that matched their area of clinical practice. The nursing home nurses were more likely to want to administer euthanasia to the ICU and the hospice patient while showing less intention to administer it to their own patient. Amongst the hospice nurses a positive attitude was also the only predictor of intention towards the ICU patient. The predictors of intention for the nursing home nurses towards

their own patient differed from the ICU and hospice nurses as moral norms together with behavioural beliefs predicted intention. Differences were also found in the way the nurses rated the patient's levels of distress, the strength of their desire to die, severity of illness and symptoms.

6.2 Similarities and differences in attitudes to euthanasia of nurses working in differing clinical areas

The significance of nursing speciality on nurse attitudes to euthanasia has only been explored in one previously published study (Kitchener, 1998), and therefore, the second aim of this thesis was to investigate similarities and differences in attitudes to euthanasia of nurses working in differing clinical areas. Other studies of nurses working in one defined practice area have show critical nurses to be supportive of euthanasia (Asch, 1996), while those in oncology and palliative care express more negative attitudes to euthanasia (Pierce, 1999; Wilkes & White, 1995). However, a weakness of these studies is the reported confusion between active and passive euthanasia thus, limiting the conclusions that can be drawn. In this thesis, to overcome the problems with definitions noted in the literature (Rosenfeld, 2000; Ubel & Asch, 1997), the term euthanasia was only used in Study 1, the focus group study and Study 3, the Q methodological study where interactive data collection methods allowed explanation and clarification of the terms. In Studies 2 and 4 studies data was collected by anonymous questionnaires, and the phrase 'a lethal dose of medication' was used instead of 'euthanasia' to avoid ambiguity.

The study by Kitchener (1998) reports the views of Australian nurses from six clinical specialities including what are described as critical care, aged care and palliative care. While acknowledging that the study took place in the State where euthanasia was briefly lawful, the critical care and mental health nurses were found to be more willing to be involved in the provision of active euthanasia than those who work in aged or palliative care. As well as differences of nationality, there is some imprecision in the use of the terms critical care, aged care and palliative care. For example, the term critical care nurse may be used to describe nurses working in a variety of clinical setting such as coronary care units, neurological units and accident and emergency units and may equally be applied to those who care for adults or children. Similarly palliative care is carried out in general hospital wards, nursing homes, and in the community as well as in specialist hospices. This is of importance as the scope of practice for nurses and their involvement in multidisciplinary teams differ across these places of work. Furthermore, some institutions, for example hospices, have clearly articulated philosophies of care, including statements on euthanasia. Therefore, what is essential is not simply to identify the clinical speciality of the nurse, but also the work environment in which they practice their speciality. Subsequently, in this thesis (apart from study 2, the general survey of nurses attitudes to euthanasia), participants were recruited from ICUs, hospices or nursing homes which are specific practice areas where caring for dying patients is a necessary part of the nurse's role.

Apart from differences in the description of patients for whom euthanasia was considered to be an appropriate option, clear differences between the nurses in

the ICUs, hospices or nursing homes were not found amongst the participants in the focus groups. While there was a tendency amongst the ICU nurses to specify patients with named diseases, the hospice nurses described symptoms, but as discussed in Chapter 2, this is most likely to be because symptom control is one of the key features of palliative care. However, the aim of this preliminary study was to identify important issues in the euthanasia debate and generate data for use in subsequent studies. Therefore, the study was not designed to specifically investigate any differences amongst groups of nurses. In study 2, nurses from any clinical area were able to complete the general online survey and therefore, similarly to the study by Kitchener (1998), the participants selected which of nine options best described their main are of work. While, differences were not found in the EIS scores for nursing working in different clinical areas, nurses working in palliative care environments were less likely to agree with the doctor's actions in the MJT than those working with older adults or in education. The findings from the Q methodological study show that nurses who defined factor one, labelled as 'cautiously supportive of euthanasia', were more likely to work in ICUs whereas the nurses that defined factor two, 'against euthanasia' were more likely to work in hospices or nursing homes. The findings show these nurses indicated strong opposition to euthanasia and that they would not in any circumstances administer euthanasia to a patient.

The TPB study showed more explicit differences between the nurses from differing clinical areas, the main finding being those between the ICU nurse and the hospice nurses. The ICU nurses had stronger control beliefs and higher subjective norm scores, while the hospice nurses held stronger anti-euthanasia

attitudes (and corresponding weaker pro-euthanasia attitudes), and stronger moral beliefs. Differences were also found in the measures for perceived behavioural control, as while the hospice nurses felt that they had more control over administering euthanasia to a patient, the ICU nurses believed more strongly that they could administer euthanasia to a patient if they wanted to.

Amongst the ICU nurses, normative beliefs and pro-euthanasia attitudes predicted intention towards the nursing home patient, and pro-euthanasia attitudes and moral norms predicted intention to administer euthanasia to their own patient. Normative beliefs, a pro-euthanasia attitude and subjective norms predicted the intentions of the hospice nurses towards the nursing home patient, while behavioural beliefs and a pro-euthanasia attitude predicted their intention to administer euthanasia to their own patient. The nursing home nurses differed from the ICU and hospice nurses as moral norms and behavioural beliefs were predictors of intention to administer euthanasia to their own patient, and this was the only group where a pro-euthanasia attitude as not found to be significant.

Some of the differences between the nurses according to their clinical area of work revealed in Studies 1, 2, 3 and 4 of this thesis appear to correspond with other published studies. In particular the differences between the ICU nurses and the palliative care nurses appear to correspond with the published study of critical care nurses (Asch, 1996), but the comparisons are limited because of the acknowledged confusion between definitions of active and passive euthanasia in Asch's study. While Wilkes et al. (1993) compare the experience of euthanasia in Chinese and Australian nurses, this qualitative investigation focused on

differences in cultural values and their understanding of euthanasia rather than exploring differences in attitudes. In another Australian study, Aranda and O'Conner (1995) examined the views of palliative care and oncology nurses, and while they demonstrated that 40% of respondents were willing to be involved in active euthanasia, the data is analysed across all participants and not differentiated by clinical speciality. A further qualitative study of 12 Belgian palliative care nurses (Verpoort, Gastmans, & de Casterle, 2004) concluded that the participants were neither for nor against euthanasia but contextualised their decisions according to the individual patient experience. Again, comparisons with the findings in this thesis are limited. The fact that the nurses were even prepared to consider euthanasia as an option, clearly indicates some acceptance of it, and as euthanasia is lawful in Belgium, the palliative care nurses in Verpoort et al.'s study (2004) would have quite different clinical experiences to their UK equivalents.

In study 4 of this thesis, some differences were also found in the way the nurses viewed the patients. The hospice patient's level of distress was rated as being greater than that of the nursing home or ICU patient. The nursing home patient was thought to have a stronger desire to die, but her severity of illness, symptoms and level of distress were considered to be lower than the hospice patient. Overall there were also weaker subjective norms for the nursing home patient. Care was taken to match the symptoms, level of distress etc for all three patients in the scenarios, but the findings in both the pilot study and the main investigation in Study 4 showed inconsistencies in these variables. If scenarios are used in research with health care professionals as participants, clinical

accuracy is crucially important, but it is possible that the nurses may have superimposed their own values onto the patients in the scenario. For example, if cancer is viewed as a more distressing illness, a nurse may rate the patient's level of distress more highly and studies have shown nurses to have negative attitudes towards patients terminally ill with cancer (Grosnek, 1981; Roman, Sorribes, & Ezquerro, 2001).

In previous international studies, age has been found to be significant factor in that younger nurses tend to demonstrate more positive attitudes to euthanasia nurses (Kitchener, 1998; Kuhse & Singer, 1993; Ryynanen et al., 2002), and the findings of studies 3 and 4 concur with this amongst UK nurses. Furthermore, the nurses in the ICU units tended to be younger than those working in hospices or nursing homes and this may account for some of the differences in the attitudes of the UK nurses. An association between religious beliefs and attitudes to euthanasia seen in studies 2, 3 and 4 is also a common finding in the international studies (Bittel et al., 2001; Davis et al., 1993; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Richardson, 1994; Ryynanen et al., 2002).

However, even taking the influence of recognised variables such as age and religiosity into account, this multi-method approach clearly demonstrates differences and similarities in the attitudes of UK nurses working in differing clinical areas to euthanasia. A further strength of the study designs in this thesis is the use of clearly defined groups of nurses experienced in the care of dying patients overcomes the weakness in the study by Kitchener (1998), and use of the term euthanasia only when face-to-face definitions could be given avoided the

ambiguity of definitions noted in previous studies (Asch, 1996; Ubel & Asch, 1997; Wilkes & White, 1995).

6.3 Evaluation of research design and data collection methods for investigating ethical questions in clinical practice

While there are several studies investigating nurses' attitudes to euthanasia, in the literature, the majority of these are surveys (Asai et al., 2001; Asch, 1996; Guedj et al., 2005; Kitchener, 1998; Kuhse & Singer, 1993; Musgrave et al., 2001; Musgrave & Soudry, 2000; Ryynanen et al., 2002; Tanida et al., 2002; Teisseyre et al., 2005). There are also a small number of qualitative studies (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995), but as noted by Verpoort, Gastmans, De Bal et al (2004), the reliability of the qualitative studies is questionable as strategies to increase the trustworthiness of the data are not evident. Thus, in this thesis use of a multi-method approach to examine nurses' attitudes to euthanasia, the research design and data collection methods for investigating ethical questions in clinical practice could be evaluated. Euthanasia is a key ethical dilemma in clinical practice, and data collection methods and research designs which can be shown to yield reliable and meaningful data on this question are likely to be transferable to investigate other ethical questions in clinical practice.

Nurses face ethical dilemmas in all areas of clinical practice but this is a particular problem for nurses caring for the terminally ill. These nurses will care for the patient and their family in the time leading up to, during and after the death as well as participating in making decisions about the care and

administration (or withdrawal) of treatment. An important feature of ethical problems in clinical practice is therefore, the need for nurses to be able to address such problems with clear understanding of not only the options available but also the moral, legal and professional implications of the available courses of action. For example, as shown in previous studies, nurses are asked by terminally ill people to help them die which raises a very obvious dilemma for the nurse (Kuhse & Singer, 1993; Matzo & Schwarz, 2001). In this situation, the nurse could refuse to help, but this could damage his/her relationship with the patient and compromise care delivery, a dilemma observed in countries where euthanasia is lawful (van de Scheur & van der Arend, 1998). Alternatively, the nurse could agree to help the patient but in doing so would not only be breaking the law (Pattinson, 2006) but also acting outwith expected professional standards and potentially subject to sanctions by the NMC (Nursing and Midwifery Council, 2004). As discussed in Chapter 1, the morality of euthanasia is a matter of public debate, but health professionals are faced with finding solutions to ethical problems not merely debating them and empirical investigation of ethical questions can help practitioners develop a deeper understanding the issues.

Ethics is a branch of philosophy, and research in this area has traditionally been that of philosophical investigation. However, the last forty years has seen increasing interest in the application of ethics in practice based disciplines such as information technology, business and marketing and most notably healthcare. The increase in ethical questions in healthcare has been driven by technological advances making a wide range of treatment options open to patients. Such improvements in care are, nonetheless, accompanied by serious questions about

how beneficial or futile such a course of action may be, the cost of providing the treatment (particularly in a public funded healthcare system), and the need for health professionals to carry out morally controversial procedures (such as abortion or euthanasia). Rather than engaging in theoretical discussions of ethical concepts, there is a need to understand the context and environment which gives rise to the ethical question (Holm, 1997), and cognisance of this has given rise to the development of empirical as well as philosophical methods of investigation. What has been termed the '*empirical turn*' (Borry, Schotsmans, & Dierickx, 2005, p1) has resulted in the application of a range of research methods particularly those used by psychologists and sociologists to investigate ethical problems (Sulmasy & Sugarman, 2001). Consequently, empirical studies of ethical problems, such as those discussed Chapter 1 are now more commonly found in the medical, nursing and bioethics literature (Hermsen & ten Have, 2002).

Empirical studies of ethical issues use a range of quantitative and qualitative research designs and data collection methods but the methodological review of the literature examining nurses attitudes euthanasia in Chapter 1 reveals few examples of quantitative studies using reliable, valid attitude measures or evidence of research testing attitude theory. As noted above, several studies are carried out using a survey design but there are inherent problems with the suitability of this research method for investigating ethical issues. Ethical concepts are complex, and particular problems with question phrasing and response formats in surveys threaten the reliability of the results (Hagelin et al., 2004). Veerport et al (2004) note that participants appear to have difficulty in

making a categorical decision about euthanasia and this may in part be explained by asking participants to respond to two-way forced choice questions. This can be overcome by the use of Likert scales which are considered to give a more graded response enabling capture of the nuance of attitudes to euthanasia which can not be achieved with a dichotomous answer (Cohen et al., 2006). There is also a need to have a shared understanding of the concepts, but several studies have shown difficulties with shared understandings of euthanasia, even when a definition is stated (Asch, 1996; Bilsen et al., 2004; Ubel & Asch, 1997; Wilkes & White, 1995).

Study 2 in this thesis consisted of an Internet based survey of registered nurses, one of the objectives of which was to explore the motives and attitudes of nurses to euthanasia. To avoid the problems of question wording and response formats noted above, the phrase '*a lethal dose of medication*' was used rather than euthanasia, and responses were in Likert scale format. The findings revealed three factors important in the euthanasia debate amongst the nurses who participated in the survey, however, the participants' responses to direct questions about their willingness to administer euthanasia and to the EIS showed that overall they neither agreed nor disagreed with the practice of euthanasia. From these findings a conclusion could be drawn that the nurses in this study were ambivalent to practising euthanasia, but an alternative explanation may be that the instrument used was too crude to capture the complexities of nursing attitudes to this controversial subject. The wide variations in reported data showing acceptance of euthanasia of doctors and nurses limits the conclusions that can be drawn from surveys into the subject (Berghs et al., 2005; House of

Lords, 2004). While the findings from study 2 provide some insight into UK nurses attitudes to euthanasia, to investigate ethical questions, surveys are unlikely to produce data that adds depth to the meaning and understanding of the issues.

While surveys are popular methods of investigation there are also examples of qualitative investigations in the literature (Kuuppelomäki, 2000; McInerney & Seibold, 1995) however, as noted by Verpoort et al. (2004) in the studies exploring nurses attitudes to euthanasia, insufficient attention being paid to increasing the validity of the data threatens its trustworthiness. There is a tendency in the qualitative studies that have been published to collect data using individuals interviews which are time consuming and expensive. Hence, even for qualitative studies, the number of participants is low as ten (McInerney & Seibold, 1995), and thirteen (Kuuppelomäki, 2000).

The first study presented in this thesis used focus groups to explore the issues that UK nurses considered to be important in the euthanasia debate. While acknowledging that the focus groups in this study were used primarily to collect preliminary data to formulate questions and stimulus material for future studies, useful insights into how nurses with experience of caring for dying patients in different areas of clinical practice were discovered. There do not appear to be any studies using focus groups to collect data on nurses' attitudes to euthanasia in the literature, and this method could yield further interesting findings particularly if a more open focus group question schedule is used, and, as suggested by Kitzinger (1994), interactive data are examined.

Study 3 and 4 in this thesis use research designs and data collections methods not found in other published studies examining attitudes to euthanasia. The TPB has been used to investigate a range of health behaviours in the general public and to understand nurses' attitudes, for example to cardio-pulmonary resuscitation (Dwyer & Williams, 2002), glove use (P. W. B. Watson & Myers, 2001), and hand hygiene practice (Jenner et al., 2002). The model also reliably provides predictive power of behaviour and intentions (Armitage & Conner, 2001), and therefore, is appropriate to investigate nurses' attitudes to euthanasia. The use of the TPB in Study 4 is atypical as the model is more commonly to usually predict behaviour directed at self, but in this thesis, the theory is used to predict behaviour of nurses towards the patients in their care. The TPB was useful to investigate the differences and similarities in attitudes to euthanasia amongst nurses working in differing clinical areas, and the findings of this study have revealed differences in the attitudes of the nurses' attitudes towards euthanasia in general and in the way they view the practice across different patient groups. While there are acknowledged limitations to Study 4, the reliability of the predictive power of the TPB increase the validity of these findings. Use of the model may therefore, be appropriate for other empirical ethical investigations. However, TPB questionnaires, particularly when scenarios are included are inherently long and therefore, time consuming to complete. This may adversely affect the response rate when investigating controversial subjects if, as in Study 4, participants remain anonymous.

Study 3 was a Q methodological study, which to date has also not been used in any published research to investigate nurses' attitudes to euthanasia. Q methodology has a distinct advantage over the other research designs used in this thesis as it enables data to be collected and systematically analysed through factor analysis. At the same time it allows an element of subjectivity, as the focus in Q methodology is the participant's subjective response to the statements and the exploration of differing accounts constructed by them (McKeown & Thomas, 1988). It is therefore, particularly appropriate to explore highly complex and socially contested concepts although to date there are few examples of Q methodological studies in empirical ethics (Bryant, Green, & Hewison, 2006; Prasad, 2001; Wong et al., 2004).

Q methodology seeks to uncover the participant's own understanding of a concept rather than measuring an operational definition imposed upon them such as those found in questionnaires. Therefore, the data generated is more meaningful in understanding complex issues such as nurses' attitudes to euthanasia. In this thesis, statements that made up the Q set for participants to sort were the same as those used for the questionnaire in the survey in Study 2. However, by allowing the participants to sort the statements, this methodology enables identification and interpretation of different opinions and beliefs about the subject not usually possible using traditional survey techniques (Chinnis et al., 2001). Furthermore, qualitative comments written in the booklets by participants assisted with interpretation of the individual ranking of statements which added a depth of understanding to the findings that cannot be elucidated in data obtained from surveys.

In this thesis, four different data collection methods have been used to examine nurses' attitudes to euthanasia and each method has been evaluated to determine its suitability for investigating ethical questions in clinical practice. Of these four methods, three (focus groups, Q methodology and the TPB) have not been used in any previously published studies to investigate nurses' attitudes to euthanasia. The problems with instrument design in survey research compromises the reliability of data obtained using this method for ethical questions. The TPB has shown to generate interesting findings and distinguish between the attitudes of nurses from differing clinical areas, but the length of the questionnaire may deter participation. Qualitative methods such as focus groups and interviews will add a dimension of individual understanding that it is difficult to discern from surveys and questionnaires, but can be time consuming both to conduct and for data analysis. Q methodology does however, bridge the gap between the disadvantages of both qualitative and quantitative methods and appears therefore, to be particularly appropriate for empirical ethical investigations.

6.4 Implications for nursing practice

6.4.1 Willingness to administer euthanasia

Inevitably the four empirical studies in this thesis show that some nurses are pro-euthanasia while others are not. Unless religiosity is taken into account, the findings of Study 2 indicate a degree of ambiguity regarding the administration of euthanasia, but Studies, 3 and 4 show more clearly the reasons why UK nurses either agree or disagree with the administration of euthanasia. Hence, surveys are less effective in understanding euthanasia in the context of clinical practice. This point is noted by Aranda and O'Conner (1995) and Verpoort et al. (2004) who

discuss the importance of contextual subtleties in nurses making decisions about the administration of euthanasia. In this thesis, the Q methodological study indicated the items that defined the groups of nurses who showed negative attitudes to euthanasia and those that defined those more positive towards euthanasia. Using three scenarios of different terminally ill patients, Study 4, the TPB study set the patients in context for the nurses from different clinical areas and differences were found in the attitudes to euthanasia of nurses working in different clinical areas. Verpoort et al. (2004) concluded that the nurses in their study were not for or against euthanasia *per se*, but their view was strongly connected to the patient's situation, but this conclusion is open to challenge. Studies 3 and 4 of this thesis show that some nurses support euthanasia and others do not, however, the nurses in the study conducted by Verpoort et al. (2004) must have been open to the idea of euthanasia to consider it at all in any context. As shown in this thesis, nurses who are firmly opposed to euthanasia would not administer it in any circumstances.

Research into this subject has shown that a greater number of nurses appear to agree with euthanasia than those who would be willing to assist in the process (Verpoort, Gastmans, De Bal et al., 2004). These findings appear to indicate that just because a nurse holds a positive attitude towards euthanasia, this does not necessarily mean that s/he will be willing to administer it. The findings of the survey in Study 2 revealed three factors important to nurses namely, their concerns about administering euthanasia, issues regarding patient control and relief of suffering and important conditions for administering euthanasia. However, unless religiosity is accounted for, the findings do not clearly indicate

the nurses willingness or otherwise to carry it out. Therefore, from Study 2, no clear conclusions can be drawn regarding the participants' willingness to administer euthanasia. Similarly, the nurses who defined factor one in the Q methodological study were cautiously supportive of euthanasia, but only slightly agreed with the statement '*If I thought the circumstances were right (and it was lawful) I would administer euthanasia'*. However, from the findings in this thesis, it is clear that should changes in the law occur in the UK, clear unambiguous guidelines detailing the limits and responsibilities of nursing in the administration of euthanasia.

In Study 4, the TPB investigation indicated differences in the way that the terminally ill patients were viewed. Differences were found in the way the nurses rated the patient's levels of distress, the strength of their desire to die, severity of illness and symptoms. It is possible that such differences may be accounted for by the descriptions of the patients in the scenarios, but these were developed in conjunction with clinical experts to ensure the details were as accurate as possible. Hence it is possible that a nurse's perception of the patient's severity of distress, symptoms and illness affect their judgments about the suitability of euthanasia for a particular patient.

6.4.2 The administration of euthanasia by nurses

If changes were made to UK legislation, this would not mean that all health professionals would (or even should) be required to administer euthanasia even if it was within the law. Any legislation would be almost certain to contain a conscience clause similar to that in the Abortion Act 1967, as is seen in the

jurisdictions where euthanasia is currently lawful. In Belgium for example, nurses have a right to refuse to participate in the act of performing euthanasia (Gastmans, Lemiengre, & de Casterle, 2006a).

If nurses were lawfully be able to administer euthanasia this would have implications for the organisation and delivery of nursing care. As discussed in Chapter 1, the notion of nurses being involved in acts of killing has been viewed as potentially damaging to the public image of nursing (Aranda & O'Conner, 1995; Dracup & Bryan-Brown, 1996; Mawdsley, 1997; McInerney & Seibold, 1995; Scanlon, 1996). Furthermore, the caring role is fundamental to nursing practice and is enshrined in the professional code (NMC, 2004). If nurses were to participate in euthanasia, there would need to be some acknowledgement that killing (in some clearly defined circumstances) could be encompassed within the caring role. This would be highly controversial with some nurses willing to undertake this role and others not only refusing to do so, but strongly objecting to the actions of nurses willing to administer euthanasia.

The findings in this thesis are of importance to the UK nursing profession, as they do provide understanding of the attitudes of nurses to euthanasia, identify the issues that nurses think are important in the euthanasia debate and demonstrate that some UK nurses would be willing to administer euthanasia in certain circumstances. Of particular significance is that two of the studies (the Q methodological study and the TPB study) give some insight into which nurses hold more positive attitudes towards active voluntary euthanasia.

6.4.3 Patient autonomy vs. professional autonomy

Respecting patient autonomy is an important concept in the euthanasia debate and emerges from the findings of the Study 1 (focus groups), Study 2 (survey), and Study 3 (the Q methodological study). This is not a surprising finding as not only is autonomy identified as an important concept in healthcare ethics (Beauchamp & Childress, 2001; Gillon, 2003; Stirrat & Gill, 2005), but it also forms the basis for the law governing consent and is a feature of the rights and responsibilities of patients within the NHS (Department of Health, 2000). The NMC expects nurses to respect the autonomous decisions of patients (Nursing and Midwifery Council, 2004), and while autonomy cannot be thought of as an absolute principle, patients do have a legal and moral right to refuse treatment. Should there be a change in the law to allow active voluntary euthanasia, then patients would be able to request that it be administered and if such a request met the required criteria in the legislation, then the health professional would be expected to act according to the patient's autonomous decision. However, as noted by Hartling (2006, p190), *"autonomy is not synonymous with autocracy, and it is not a violation of autonomy to refuse to kill the patient."*

An interesting finding of an Australian study is that amongst the doctors and nurses who participated in the study, opposition to euthanasia legislation did not necessarily equate to being opposed to euthanasia *per se* (Cartwright, Williams, Parker, & Steinberg, 2006). While acknowledging the possible influence that the temporary change in legislation permitting euthanasia in the Northern Territory, Cartwright et al (2006) suggest that this finding may be explained by a resistance particularly from doctors to have the law intrude into their clinical and

professional autonomous judgements. Therefore, patients may request euthanasia, but health professionals may refuse to comply with their wishes preferring treatment decisions to remain the responsibility of health professionals.

In its submission of evidence to the House of Lords on the Assisted Dying Bill, the nursing representative body, the RCN, stated the practice of euthanasia to be contrary to the public interest, nursing and medical ethics and patients' civil rights (House of Lords, 2004). However, it is difficult to discern why, if a nurse was in agreement with the practice, that respecting the lawful autonomous decision of a patient could be either against nursing ethics or indeed contrary to the public interest. Indeed respecting such a decision could be viewed as upholding a patient's civil rights. Findings from Studies 1, 2 and 3 indicate some concerns regarding respecting patient autonomy which conflict with the current stance of the RCN as it continues to argue against the practice of euthanasia.

6.5 Limitations of the thesis

The limitations of each study were discussed in their respective chapters however, there are further overarching limitations to this thesis which should be acknowledged. Two studies in this thesis use self-report measures, the use of which as a primary means of data collection has been criticised (Conner & Sparks, 2005; Razavi, 2001). However, one qualitative method (focus groups) and Q methodology described as 'qualiquantology' (Stenner & Stainton Rogers, 2004) have also been used in this thesis, to address different facets of the complex issue of nurses' attitudes to euthanasia.

For three of the four empirical studies, data were collected from nurses working in, ICUs, hospices and nursing home. Patients in an ICU are by definition critically ill and will receive aggressive treatment for their condition. Hospice patients will have some condition for which they will not be receiving active treatment for the disease (such as cancer), but instead the focus of care will be on the palliation of symptoms. While those in nursing homes may be terminally ill and receiving palliative care, some may be elderly and in need of care for physiological and/or psychological degenerative conditions associated with old age. Thus, the clinical experience of the nurses selected in the studies would encompass caring for dying people in quite different settings with different emphasis on the nature of that care and treatment. However, many terminally ill people also die in their own homes (Higginson, Jarman, Astin, & Dolan, 1999), and there is evidence to suggest that given a choice, this would be the preferred place of death for older people (Gott, Seymour, Bellamy, Clark, & Ahmedzai, 2004). Therefore, a weakness of these studies is that the views of community nurses who care for people in their own homes are not represented.

However, while all the clinical settings were institutional, they vary in their organisation and structure as the ICUs were part of NHS Trust hospitals, the hospices were in the charity sector and the nursing homes were in the independent sector. The hospices and nursing homes therefore, are more community based that the NHS trusts, and the ethos, organisation and delivery of nursing care in these settings is quite different to that in acute hospitals. For example, the numbers of qualified nurses on any one shift in an ICU would be substantially greater than in a hospice or nursing home. ICU nurses therefore,

work as part of a large nursing and multidisciplinary team made up of anaesthetists, consultant physicians and surgeons, radiographers, physiotherapists and pharmacists. While the nurses in hospices and nursing homes also work in teams, these are smaller and of a different composition to those in acute hospitals. It is quite common practice for example to have only one or two qualified members of staff on a shift in a nursing home with fundamental nursing care being carried out by care assistants under the supervision of the qualified nurse. Therefore, while the decisions about the care and treatment of a patient will never be as acute as those made regarding a critically ill person in an ICU, the nursing home nurses are more likely to have to make decisions themselves rather than as part of a large multidisciplinary team.

Two further issues were not directly addressed in sufficient detail. A feature of the Dutch and Belgian studies is the willingness of nurses to support patients during the process of euthanasia even if they do not agree with it (de Casterle, Verpoort, de Bal, & Gastmans, 2006). None of the studies in this thesis adequately addressed this issue and information of how nurses view this would further add to the understanding of UK nurses' attitudes to euthanasia. The second issue that could have been addressed more explicitly is that of physician assisted suicide, particularly in view of the ongoing attempts by Lord Joffe to introduce an assisted dying bill into Parliament.

6.6 Suggestions for further research into nurses' attitudes to euthanasia

This thesis has shown differences in the attitudes of nurses working primarily in ICUs hospices and nursing homes to euthanasia. While nurses in these clinical areas were selected as they are experienced in caring for dying people, there are other clinical areas equally suitable for investigation most notably nurses working with patients in their own homes in the community. Given the limitations of survey research discussed above, there is scope to develop a greater understanding of community-based nurses' attitudes to euthanasia using alternative methodologies, for example, using Q methodology.

A mix of quantitative and qualitative methods have been used in this thesis to collect data, and more in depth studies interviews could be a useful way of generating a richer understanding of this subject. While there are some qualitative studies examining nurses' attitudes to euthanasia in the literature (Kuuppelomäki, 2000; Matzo & Schwarz, 2001; McInerney & Seibold, 1995), the studies have been criticised for the small number of participants, and insufficient attention to validating the findings (Verpoort, Gastmans, De Bal et al., 2004).

Differences were found between the attitudes of nurses working in differing clinical areas, and this finding merits further investigation across specialist areas of practice, for example, the attitudes of nurses working in other specialist practice areas such as mental health or with clients with learning disabilities could be examined. Given the consistency in the findings of the hospice nurses in this thesis, further research within the specialist area of practice could be carried

out to include a range of palliative care nurses working across hospices, hospitals, and the community.

Studies of Dutch and Belgian nurses have been an important addition to the literature in this area as currently these are the only two countries where nurses do lawfully have experience of voluntary active euthanasia. There is therefore, an opportunity for nurses in the UK to learn from the experiences of Dutch and Belgian nurses, and focused comparative studies of the attitudes of Dutch and/or Belgian nurses could be informative in understanding the impact of changes in the law on nursing practice.

6.7 Summary

Taken together this series of studies drawing on different methodologies provide an insight into the attitudes of UK nurses to euthanasia. Across four studies, this thesis has shown UK nurses to be similar to their US, Australian and European colleagues in their concerns about the administration of euthanasia to terminally ill patients. The need to respect the patient's autonomous choices, the alleviation of pain and suffering are important issues, but the complexities of working within a multidisciplinary team and the challenge to patient autonomy posed by the patient's network of social relationships are also recognised. An important finding is the concern UK nurses have of the potential impact on the practice and delivery of nursing the administration of euthanasia would have, particularly if performed by nurses.

The findings from the four studies in this thesis show some nurses are willing to carry out acts of euthanasia while others are not, and the Q methodological study and TPB study gives some insight into where these differences lie While attitudes to euthanasia were shown to be the strongest predictor of the ICU, hospice and nursing home nurses attitudes to euthanasia, some differences across nurses from these three clinical areas have also been revealed. Concurrent with previous studies, age and the strength of the nurses' religious beliefs were found to be significant.

The mixed methodological approach is a particular advantage in this thesis both to enable a thorough investigation of a complex subject, and also to evaluate research design and data collection methods for investigating ethical questions in practice. The studies in this thesis show the limitations of survey designs to investigate ethical questions, and three methods not previously used to investigate nurses' attitudes to euthanasia have been used and evaluated. While the use of focus groups in this thesis was limited, they were shown to be a useful method to uncover pertinent issues in the euthanasia debate. Application of the TPB was effective in discriminating between the attitudes of nurses from different clinical areas and Q methodology bridged the gap between the quantitative and qualitative methods. There is little evidence of consideration being given to the combination of quantitative and qualitative methodologies in psychology which Todd, Nerlich and McKeown (2004) argue has *"much to gain from exploiting both methods together"* (2004, p9).

6.8 Concluding statement

The contribution of this thesis has been to determine the attitudes of UK nurses to euthanasia, to uncover the affect of the nurse's clinical speciality on such attitudes and review the importance of appropriate research design for investigating ethical questions in nursing. It is hoped that the findings will stimulate further research into nurses' attitudes to euthanasia and other ethical aspects of practice.

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Content Analysis of Data from Focus Groups (Stage 1)

1 What are the advantages of administering euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU (5 participants)
The patient could control their death The patient could avoid waiting for the death to happen The patient would be in control It would prevent distress for the patient It would prevent distress for the relatives It could ensure a quick death It could mean a painless death	Putting the patient out of their misery Having a quick death Having a comfortable death Having a pain free death The relatives don't need to see the patient suffer The patient may prefer their money to go to the family rather than into prolonged care	The patient would be no longer suffering The patient would have a pain free death The patient would have a comfortable death It would be better for the family It avoids a drawn out death for the patient and the family It may be a cost-effective use of health care resources The patient could plan their death It would be controlled both medically and emotionally It would stop the patient feeling their only option was suicide It would stop the relatives feeling that they had to assist the patient to commit suicide It would be someone else's responsibility

2 What are the disadvantages of administering euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Someone has to do it It might stop communication between the nurse and patient You wouldn't be sure it was what the patient really wanted The staff might get used to it and it might become too easy Patients and relatives might be suspicious of nurses' actions It would reduce public confidence in nurses Patients might be worried about dying before their time The patients wouldn't want to come to the hospice if they thought that euthanasia might be carried out Patients might ask for it for the wrong reasons such as feeling they are a burden to their families	You would get struck off It wouldn't allow nature to take its course You wouldn't be sure the patient really meant it You wouldn't know if the patient was really making the decision or if someone else was influencing them	Not knowing if it is what the patient really wants It could be abused It would be a big responsibility for the person administering the lethal dose The nurse would know that the dose administered had caused the patient's death Could be abused by the family for financial gain

3 What factors might help a nurse administering euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Past experiences Strict protocols Guidelines That the decision is well thought through Multidisciplinary involvement through meetings or case conferences That the family is in accordance with the patients wishes The opportunity to involve the family A psychiatric opinion to be sure that the patient has made a rational decision Support for the staff during and after administering the lethal medication Self administration by the patient Not being in the professional role - it may be easier to help a close family member than a patient	If the patient was suffering and there was nothing else the nurse could do Knowing the patient Being convinced it was what the patient wanted Knowing it was legal Having guidelines to follow	Knowing it was legal Having guidelines to follow Having Trust policies Having the views of the professional bodies Knowing the patient and their relatives Being personally involved with the care of the patient Knowing that you had a right to refuse to do it without any comeback Multidisciplinary team involvement Using a machine or having someway that the nurse did not feel that she was responsible for the death Use of the most humane method

4 What factors might prevent a nurse administering euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Religious or spiritual views Past experiences Views of professional bodies The law How good a relationship they had with the patient It is morally wrong Should be a doctor's role not the nurses Conflict between members of the multidisciplinary team, patients and relatives Fear Others important to the nurse may disagree with her actions Worry about how others would see the nurse and how it may affect her personal relationships The environment the patient was in e.g. a hospice	Professional responsibilities Knowing that a nurse does not have a right to terminate a life Having a conscientious objection Difficulty in applying guidelines	The nurse's own beliefs The nurse's spiritual beliefs Knowing that it was not legal Lack of knowledge about the patient or the family Disagreement amongst members of the multidisciplinary team It should be a doctors role not a nurses

5 How might a nurse feel who administered euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Guilt	Guilt	Satisfied
That it is a big responsibility	Relief	That she'd done a good job
Regret	The enormity of the act	Upset
Anger	Sense of power	Guilty
Frustration	Control	Shocked
Pleased	That she'd killed someone	Confused
Relieved		Sad
Murder		Relieved
Conflict with the nurse's role		

6 How might a nurse feel who did not administer euthanasia to a patient?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Guilt Regret That she had let the patient down That the patient's rights had not been respected That the patient's wishes had not been respected That she couldn't help them That the patient's choice had been restricted That societies or someone else's beliefs had been imposed on the patient That they had denied the patient a peaceful death Asking, "why couldn't we have helped them more?" Worried about the effect on the family Worried about whether it would help or hinder grieving	Guilt Failure A feeling of responsibility	Relieved Frustrated Upset Guilty Confused Sad

7. Are there any groups or individuals who may influence a nurse's decision to administer euthanasia?

Hospice (6 participants)	**Nursing home (5 participants)**	**ICU**
The patient The patient's family Other members of staff Professional bodies	The family The patient The profession and professional bodies Colleagues The nurse's family The nurse's friends	Peers - other staff members Relatives Carers Doctors The media Politicians Everyone involved in the patients care Experience of other cases Experiences in other countries Experiences of those who had been directly involved with euthanasia and how it affected them - professionals or relatives

8 Are there any groups of patients of individuals who come to mind when thinking about administering euthanasia?

Hospice (6 participants)	Nursing home (5 participants)	ICU
Patients with multiple sclerosis	Patients with uncontrollable pain	Those who are terminally ill
Patients with end stage cardiac failure	People with arthritis	Those with cancer
Those facing a horrible end	Those with no quality of life	Those with spinal injuries
Those experiencing a prolonged death	Patients with Parkinson's Disease	Those with degenerative diseases such as MS, MND
	Patients with multiple sclerosis	
Patients with Huntingdon's Disease	Patients with COPD	Those who have had CVAs
Those experiencing a distressing death	Patients with uncontrollable symptoms	Those with dementia
Those with no quality of life	associated with malignant disease	Those debilitated by their illness e.g. COPD
Those with uncontrolled pain		Those completely dependent on their carers
Those with uncontrolled bleeding		Chronically ventilated patients
Those with unrelieved breathlessness		Those who want to die because they think their quality of life is poor
Patients who have lost heir independence		
Those who have no dignity		Children with severe or lethal congenital abnormalities
Those who experience choking		
The disease is irrelevant, the amount of suffering is the most important		Those in PVS

Content Analysis of Data from Focus Groups (Stage 2)

1 What are the advantages of administering a lethal injection to a patient?

Themes	Statements	Groups
Control	Controlling the death The patient would be in control The patient could plan their death It would be controlled both medically and emotionally	All
A pain free death	A painless death A comfortable death A pain free death Putting the patient out of their misery The patient would be no longer suffering It would prevent distress for the patient	All
End of suffering	Putting the patient out of their misery The patient would be no longer suffering It would prevent distress for the patient A quick death It avoids a drawn out death for the patient and the family	All
Less distress for relatives	The relatives don't need to see the patient suffer It would be better for the family It would prevent distress for the relatives	All
Cost effectiveness	The patient may prefer their money to go to the family rather than into prolonged care It may be a cost-effective use of health care resources	ICU & NH
Disregarded	It would stop the patient feeling their only option was suicide It would stop the relatives feeling that they had to assist the patient to commit suicide It would be someone else's responsibility	ICU ICU ICU

2 What are the disadvantages of administering a lethal injection to a patient?

Themes	Statements	Groups
Being unsure of the patient's wishes	You wouldn't be sure it was what the patient really wanted You wouldn't be sure the patient really meant it Not knowing if it is what the patient really wants	All
Influence of others on decision	Could be abused by the family for financial gain You wouldn't know if the patient was really making the decision or if someone else was influencing them Patients might ask for it for the wrong reasons such as feeling they are a burden to their families	All
Suspicion & its affect on public confidence	The patients wouldn't want to come to the hospice if they thought that euthanasia might be carried out Patients and relatives might be suspicious of nurses' actions It would reduce public confidence in nurses It could be abused Patients might be worried about dying before their time The staff might get used to it and it might become too easy	All
Responsibility	It would be a big responsibility for the person administering the lethal dose The nurse would know that the dose administered had caused the patient's death Someone has to do it	H & ICU
Disregarded	It might stop communication between the nurse and patient You would get struck off	H NH

3 What factors might help a nurse administering a lethal dose of medication to a patient?

Themes	Statements	Groups
Guidelines & protocols	Strict protocols Guidelines Having guidelines to follow Having guidelines to follow Having Trust policies Having the views of the professional bodies Knowing the patient and their relatives	All
MTD involvement	Multidisciplinary involvement through meetings or case conferences Multidisciplinary team involvement	H & ICU
Family involvement	That the family is in accordance with the patients wishes The opportunity to involve the family Knowing the patient and their relatives	H & ICU
Being convinced about the patient's decision	That the decision is well thought through If the patient was suffering and there was nothing else the nurse could do Being convinced it was what the patient wanted A psychiatric opinion to be sure that the patient has made a rational decision Knowing the patient and their relatives Being personally involved with the care of the patient Knowing the patient	All
Support for the nurse	Knowing that you had a right to refuse to do it without any comeback Support for the staff during and after administering the lethal medication	H & ICU
Self administration	Using a machine or having someway that the nurse did not feel that she was responsible for the death Self administration by the patient	H & ICU
That the act was lawful	Knowing it was legal	NH & ICU
Disregarded	**Past experiences** Not being in the professional role - it may be easier to help a close family member than a patient Use of the most humane method	H H ICU

4 What factors might prevent a nurse administering a lethal dose of medication to a patient?

Themes	Statements	Groups
Nurse's spiritual beliefs	Religious or spiritual views The nurse's spiritual beliefs	H & ICU
Nurse's moral beliefs	The nurse's own beliefs It is morally wrong Knowing that a nurse does not have a right to terminate a life Having a conscientious objection	All
Views of others	Views of professional bodies Professional responsibilities Worry about how others would see the nurse and how it may affect her personal relationships Past experiences Others important to the nurse may disagree with her actions	All
The law	The law Knowing that it was not legal Difficulty in applying guidelines	H & ICU
Disagreement amongst MDT	Disagreement amongst members of the multidisciplinary team Conflict between members of the multidisciplinary team, patients and relatives	H & ICU
Relationship with the patient	How good a relationship they had with the patient Lack of knowledge about the patient or the family	H & ICU
Disregarded	It should be a doctors role not a nurses Should be a doctor's role not the nurses Past experiences Fear	ICU H NH H

5 How might a nurse feel who administered a lethal dose of medication to a patient?

Themes	Statements	Groups
Responsibility	That it is a big responsibility The enormity of the act Sense of power Control	H & NH
Positive	Satisfied That she'd done a good job Relieved Pleased	All
Negative	**Guilt** Regret Anger Frustration Murder That she'd killed someone Upset Shocked Confused Sad	All
Disregarded	Conflict with the nurse's role	H

6 How might a nurse feel who did not administer a lethal dose of medication to a patient?

Themes	Statements	Groups
Positive	Relieved	ICU
Negative	Guilt Regret A feeling of responsibility That she had let the patient down That the patient's rights had not been respected That the patient's wishes had not been respected That she couldn't help them That the patient's choice had been restricted That societies or someone else's beliefs had been imposed on the patient That they had denied the patient a peaceful death Asking, "why couldn't we have helped them more?" Worried about the effect on the family Worried about whether it would help or hinder grieving Failure Frustrated Upset Confused Sad	All

7 Are there any groups or individuals who may influence a nurse's decision to administer a lethal dose of medication?

Themes	Statements	Groups
Other Professionals	The profession and professional bodies Colleagues Doctors Peers - other staff members	NH & ICU
Patient's family & carers	The family Relatives Carers Everyone involved in the patients care	NH & ICU
Nurse's family & friends	The nurse's family The nurse's friends	NH
Experiences of others	Experience of other cases Experiences in other countries Experiences of those who had been directly involved with euthanasia and how it affected them - professionals or relatives	ICU
Disregarded	The media Politicians	ICU

Nurses' Attitudes to Euthanasia

What is the study trying to find out?

This study is exploring the attitudes of registered nurses and student nurses to voluntary active euthanasia

What is voluntary active euthanasia (VAE)?

VAE means that some actions are taken (such administering a lethal dose of medication) with the intention of ending the patient's life. It is described as voluntary as the act is carried out at the request of the patient and with their consent.

Is this legal?

No. Currently VAE is not lawful in the UK, but there have been some attempts to change the law and the subject is widely discussed in the media

Why do we want to know what nurses think about VAE?

Because nurses are closely involved in the care of people who are dying their attitudes to VAE are important to the debate on this subject.

If you are a registered nurse or a student nurse and would like to take part, what should you do?

Please answer the following questions. The questions relate to actions used to bring about the death of the patient at their request and not to any other actions such as increasing sedation or withdrawing and withholding treatment. To make this clear the phrase "a lethal dose of medication" is used in each question rather than voluntary active euthanasia.

Your responses are completely anonymous

Section 1 of 5: The patient experience

The following questions are all about administering a lethal dose of medication to the patient. The questions relate to actions used to bring about the death of the patient at their request and not to any other actions such as increasing sedation or withdrawing and withholding treatment.

1. The patient would be in control of their death if a lethal dose of medication was administered

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

2. If a lethal dose of medication was administered, the patient could plan their death

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

3. Administering a lethal dose of medication would prevent distress for the patient

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

4. Administering a lethal dose of medication would ensure a quick death

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

5. Patients with distressing symptoms should have the option of having a lethal dose of medication administered

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

6. If a patient asked you to administer a lethal dose of medication, you wouldn't know if they were making the decision or if someone else was influencing them

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

7. If health professionals were allowed to administer a lethal dose of medication, patients might be worried about dying before their time

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

8. It would be better if the patient self administered the drugs rather than any health professional

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

9. Administering a lethal dose of medication doesn't allow nature to take its course

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

10. People should not be forced to stay alive if they do not want to

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

11. Having the option of requesting that a lethal dose of medication be administered allows patients to make choices about their death

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

12. Requesting that a lethal dose of medication be administered should allowed for mental suffering as it is as bad as physical suffering

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

13. The administration of a lethal dose of medication should be and option for those with a poor quality of life

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

14. The administration of a lethal dose of medication should only be an option for those mentally competent

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

Section 2 of 5: The experience of family and friends

The following questions are all about the effects of administering a lethal dose of medication to the patient on the patient's family and friends. The questions relate to actions used to bring about the death of the patient at their request and not to any other actions such as increasing sedation or withdrawing and withholding treatment.

Please rate how strongly you agree or disagree with each statement

1. Administering a lethal dose of medication to the patient would prevent distress for the relatives

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

2. Euthanasia could be abused by the family for financial gain

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

3. Patients may be inappropriately influenced by family members to request a lethal dose of medication to be administered

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

4. Patients may ask for a lethal dose of medication to be administered because they feel they are a burden to their families

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

5. If administering a lethal dose of medication was an option, I would have to be convinced that there was no conflict between the multidisciplinary team and the relatives

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

6. If the patient wanted a lethal dose of medication to be administered, the family would need to be in agreement

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

7. There should be an opportunity to involve the family in decisions about administering a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

Section 3 of 5: The nurse's experience

The following questions are all about how a nurse might feel about administering a lethal dose of medication to a patient. The questions relate to actions used to bring about the death of the patient at their request and not to any other actions such as increasing sedation or withdrawing and withholding treatment.

Please rate how strongly you agree or disagree with each statement

1. It would be difficult for the nurse to be sure that a lethal dose of medication was what the patient really wanted

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

2. It would be easier to administer a lethal dose of medication if you knew the patient and their relatives

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

3. It would be important to have strict guidelines to follow for administering a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

4. I would be worried about finding it difficult to apply the guidelines for administering a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

5. If nurses were allowed to administer a lethal dose of medication to patients it would reduce public confidence in nurses

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

6. Administering a lethal dose of medication is too big a responsibility for a nurse

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

7. A nurse administering a lethal dose of medication might feel guilty because they had directly caused the patient's death

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

8. A lethal dose of medication should only be administered if the patient was suffering and there was nothing else that could be done

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

9. If asked to administer a lethal dose of medication, I would need to be convinced that it was what the patient wanted

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

10. I would need to be personally involved with the care of the patient if I was to administer a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

11. I would need to have a right to refuse to administer a lethal dose of medication without any comeback

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

12. My religious beliefs would stop me administering a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

13. I would have a conscientious objection to carrying out a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

14. Administering a lethal dose of medication is in conflict with the nurse's role

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

15. If I administered a lethal dose of medication, I would worry about how others would see me and how this may affect my personal relationships

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

16. A nurse administering a lethal dose of medication might feel relieved that the patient's suffering was at an end

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

17. If administering a lethal dose of medication was allowed, nurses may give poorer standards of care

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

18. I would never in any circumstances administer a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

19. If I thought the circumstances were right (and it was lawful) I would administer a lethal dose of medication

	1	2	3	4	5	6	7	
Strongly disagree								Strongly agree

Here are four more general questions about VAE

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Administering a lethal dose of medication is wrong regardless of extenuating circumstances					
Life at any price or condition is better than not living					
Dignity of life should allow one the privilege of deciding the appropriate time to die					
The prolongation of life just for the sake of longevity seems personally demeaning					

Section 4 of 5: Ethical problems in the workplace

In the next section I would like to know how you feel about two dilemmas in the workplace. The first one is the worker's dilemma and the second the doctor's dilemma.

Please read each dilemma and answer the questions following it by selecting the appropriate button.

The worker's dilemma

Due to some seemingly unfounded dismissals, some factory workers suspect the managers of eavesdropping on their employees through an intercom and using this information against them. The managers officially and emphatically deny this accusation. The union declares that it will only take steps against the company when proof has been found that confirms these suspicions. Two workers then break into the administrative offices and take tape transcripts that prove the allegation of eavesdropping.

1. Do you disagree or agree with the workers behaviour?

	-3	-2	-1	0	+1	+2	+3	
I strongly disagree								I strongly agree

2. How acceptable do you find the following arguments *in favour* of the two workers behaviour. Suppose someone argued they were *right*....

	-4	-3	-2	-1	0	+1	+2	+3	+4
because they didn't cause much damage to the company									
because due to the company's disregard for the law, the means used by the two workers were permissible to restore law and order									
because trust between people and individual dignity count more than the firm's internal regulations									
because the company had committed an injustice first, the two workers were justified in breaking into the offices									
because most of the workers would approve of their deed and many of them would be happy about it.									
because the two workers saw no legal means of revealing the company's misuse of confidence, and therefore chose what they considered the lesser evil									

3. How acceptable do you find the following arguments *against* the two workers behaviour? Suppose someone argued they were *wrong*....

	-4	-3	-2	-1	0	+1	+2	+3	+4
because we would endanger law and order in society if everyone acted as the two workers									
because one must not violate such a basic right as the right of property ownership and take the law into one's own hands, unless some universal moral principle justifies doing so									
because risking dismissal from the company on behalf of other people is unwise									
because the two should have run through the legal channels at their disposal and not committed a serious violation of the law									
because one doesn't steal and commit burglary if one wants to be considered a decent and honest person									
did because the dismissals of the other employees did not affect them and thus they had no reason to steal the transcripts									

The doctor's dilemma

A woman had cancer and she had no hope being saved. She was in terrible pain and so weakened that a large dose of a painkiller such as morphine would have caused her death. During a temporary period of improvement, she begged the doctor to give her enough morphine to kill her. She said she could no longer endure the pain and would be dead in a few weeks anyway. The doctor complied with her wish

4. Do you disagree or agree with the doctor's behaviour?

	-3	-2	-1	0	+1	+2	+3	
I strongly disagree								I strongly agree

5. How acceptable do you find the following arguments *in favour* of the doctor? Suppose someone argued that he had acted *rightly*....

	-4	-3	-2	-1	0	+1	+2	+3	+4
because the doctor had to act according to his conscience. The woman's condition justified an exception to the moral obligation to preserve life									
because the doctor was the only one who could fulfil the woman's wish; respect for her wish made him as he did									
because the doctor only did what the woman talked him into doing. He need not worry about unpleasant consequences									
because the woman would have died anyway and it didn't take much effort for him to give her an overdose of a painkiller									
because the doctor didn't really break a law. Nobody could have saved the woman and he only wanted to shorten her suffering									
because most of his fellow doctors would presumably have done the same in a similar situation									

6. How acceptable do you find the following arguments *against* the doctor? Suppose someone argued he acted *wrongly*....

	-4	-3	-2	-1	0	+1	+2	+3	+4
because he acted contrary to his colleagues convictions. If they are against mercy-killing the doctor shouldn't do it									
because one should be able to have complete faith in a doctor's devotion to preserving life even if someone with great pain would rather die									
because the protection of life is everyone's highest moral obligation. We have no clear moral criteria for distinguishing between mercy killing and murder									
because the doctor could get himself into much trouble. They have already punished others for doing the same thing									
because he could have had it much easier if he had waited and not interfered with the woman's dying									
because the doctor broke the law. If one thinks that mercy-killing is illegal, then one should refuse such requests									

Section 5 of 5: Finally some questions about you.

1. Are you

	Female
	Male

2. How would you describe your religious beliefs? **Please select one only**

	I hold strong religious views and attend service regularly
	I hold religious views but do not often attend religious service
	I hold no religious views

3. What qualifications do you hold? **Please select all that apply**

	I am a student nurse and not registered yet
	First level registration ONLY (e.g. SRN, RN, RMN)
	Diploma with first level registration (e.g. from a project 2000 course)
	Post -registration qualification (e.g. ENB 100, 218, 934)
	Bachelors degree (e.g. BA, BSc, BHSc)
	Masters degree (e.g. MA, MSc)
	Research degree (e.g. MPhil, PhD)

4. Which of the following best describe your main are of work? **Please select one only**

	I am a student nurse and not yet practising as a registered nurse
	Critical care in a hospital (e.g. ICU, A and E, CCU)
	Medicine in a hospital
	Surgery in a hospital
	Community based
	Working with older people in a hospital
	Working in a hospice
	Working in a nursing home
	Management
	Education (working within a university or educational department)
	Other, please specify

4. If you work in clinical practice of are a student nurse, which of the following best describes your main area of practice or branch programme?

	Adult nursing
	Care of the elderly
	Child health
	Mental Health
	Learning Disabilities

Thank you for completing this questionnaire.

The results from this study will contribute to PhD thesis examining nurses' attitudes to euthanasia.

If you would like more information about this research please contact me:

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Scoring Algorithm for the C-Index and for the Indices for Moral Attitudes of the MJT

	Workers' Dilemma		Doctor's Dilemma			
Opinion:						
	*Pro**	*Con**	*Pro**	*Con**	$x_{i.4}$	$(x_{i.4})^2$
Stage 1	1**	12	4	10		
Stage 2	5	9	3	11		
Stage 3	3	11	6	7		
Stage 4	2	7	5	12		
Stage 5	6	10	2	8		
Stage 6	4	8	1	9		
$\sum_{i}^{k} x$ =					$SS_{tot} = \sum x^2 =$	
	$\sum_{i=1}^{6} x_{i,pro}$ =		$\sum_{i=1}^{6} x_{i,con}$ =		C-Index = r^2 = 100	
SS_{Stages} = $SS_{tot} - SS_{Dev}$ =		$SS_{Stage} = \sum_{j=1}^{4} (\sum_{i=1}^{6} x_{ij})^2/4 - SS_M$ =			$r^2_{Stage} = \frac{SS_{Stage}}{SS_{Dev}}$ =	
SS_{Items} = $(\Sigma x)^2/24$ =		$SS_{PC} = \sum_{j=Pro}^{Con} (\sum_{i=1}^{12} x_{ij})^2/12 - SS_M$ =			$r^2_{PC} = \frac{SS_{Pro/Con}}{SS_{Dev}}$ =	
		$SS_{Dif} = \sum_{j=Workers}^{Doctor} (\sum_{i=1}^{12} x_{ij})^2/12 - SS_M$			$r^2_{Dif} = \frac{SS_{Dif}}{SS_{Dev}}$ =	
					C* Index $= \frac{SS_y}{SS_{Dev} - SS_{Dif}}$ =	

The C*-Index has been suggested by Lind (1978) to make up for the fact that variance due to the factor „dilemma-context" should not be counted against moral judgment competence. Correlation studies showed that, however, the empirical differences between C and C* are very small. Therefore, the latter have hardly been used.

Notes

* Pro and Con are to be scored according to the subject's *opinion*. For example, if the subject says, s/he thinks the workers were *wrong* in breaking into the firm, then their answers to the pro-arguments in the worker-dilemma must be scored as *con* and their answers to the con arguments must be scores as *pro*.

** Item numbers in the standard version of the MJT.

Taken from Lind, G. (1999). *An Introduction to the Moral Judgment Test.*

The Q Set indicating themes and sub-themes

No	Themes	Sub-themes	Statements	Source	Pos/neg
1	**Patient**	Control	The patient would be in control if euthanasia was carried out	Interviews	+
2		Control	If euthanasia was carried out, the patient could plan their death	Interviews	+
3		Suffering	Euthanasia would prevent distress for the patient	Interviews	+
4		Suffering	Euthanasia would ensure a quick death	Interviews	+
5		Suffering	Euthanasia should be an option for patients with distressing symptoms	Interviews	+
6		Decision making	If someone requested euthanasia, you wouldn't know if the patient was making the decision or if someone else was influencing them	Interviews	-
7		Decision making	If euthanasia was an option, patients might be worried about dying before their time	Interviews	-
8		Control	It would be better if the patient self administered the drugs rather than any health professional administer euthanasia	Interviews	+
9		Control	Euthanasia doesn't allow nature to take its course	Interviews	-
10		Control	People should not be forced to stay alive if they do not want to	Literature	+
11		Control	Euthanasia allows patients to make choices about their death	Literature	+
12		Suffering	Euthanasia should be allowed for mental suffering as it is as bad as physical suffering	Literature	+
13		Suffering	Euthanasia should be an option for those with a poor quality of life	Literature	+
14		Suffering	Euthanasia should only be an option for those mentally competent	Literature	-
15	**Relatives & friends**	Suffering	Euthanasia would prevent distress for the relatives	Interviews	+
16		Influence	Euthanasia could be abused by the family for financial gain	Interviews	-
17		Influence	Patients might ask for euthanasia for the wrong reasons such as feeling they are a burden to their families	Interviews	-
18		Decision making	If euthanasia was an option, there would not have to be conflict between the multidisciplinary team and the relatives	Interviews	-
19		Decision making	If the patient wanted euthanasia the family would need to be in agreement	Interviews	+

No	Themes	Sub-themes	Statements	Source	Pos/neg
20		Decision making	There should be an opportunity to involve the family in decisions about euthanasia	Interviews	+
21	**The nurse**	Influence	It would be difficult for the nurse to be sure that euthanasia was what the patient really wanted	Interviews	-
22		Influence	Euthanasia would reduce public confidence in nurses	Interviews	-
23		Responsibility	Euthanasia is too big a responsibility for a nurse	Interviews	-
24		Responsibility	A nurse carrying out euthanasia might feel guilty because they had directly caused the patient's death	Interviews	-
25		Protocols	It would be important to have strict guidelines to follow for administering euthanasia	Interviews	+
26		Protocols	I would be worried about finding it difficult to apply the guidelines for administering euthanasia	Interviews	-
27		Influence	It would be easier to administer euthanasia if you knew the patient and their relatives	Interviews	+
28		Suffering	Euthanasia should only be carried out if the patient was suffering and there was nothing else that could be done	Interviews	+
29		Influence	If asked to administer euthanasia, I would need to be convinced that it was what the patient wanted	Interviews	+
30		Influence	I would need to be personally involved with the care of the patient if I was to administer euthanasia	Interviews	+
31		Protocols	I would need to have a right to refuse to administer euthanasia without any comeback	Interviews	+
32		Beliefs	My religious beliefs would stop me carrying out euthanasia	Interviews	-
33		Beliefs	I would have a conscientious objection to carrying out euthanasia	Literature	-
34		Beliefs	Euthanasia is in conflict with the nurse's role	Interviews	-
35		Influence	If I administered euthanasia, I would worry about how others would see me and how this may affect my personal relationships	Interviews	-
36		Responsibility	A nurse administering euthanasia might feel relieved that the patient's suffering was at an end	Interviews	+
37		Beliefs	If euthanasia was allowed nurses may give poorer standards of care	Literature	-

No	Themes	Sub-themes	Statements	Source	Pos/neg
38		Beliefs	I would never in any circumstances administer euthanasia	Literature	-
39		Beliefs	If I thought the circumstances were right (and it was lawful) I would administer euthanasia	Literature	+
40	**Society**	Positive	Euthanasia may be a cost-effective use of health care resources	Interviews	+
41		Negative	The staff might get used to euthanasia and it might become too easy	Interviews	-
42		Positive	Euthanasia is a humane act	Literature	+
43		Negative	Euthanasia is morally wrong	Literature	-
44		Negative	Euthanasia is murder	Literature	-
45		Negative	If euthanasia was allowed then palliative care services would decline	Literature	-
46		Negative	In this country suffering animals are treated more humanely than suffering humans	Literature	+
47		Negative	It would be impossible to regulate euthanasia properly	Literature	-
48		Positive	Death is not always a bad thing	Literature	+
49		Negative	Euthanasia is a slippery slope that places all of us in danger	Literature	-
50		Positive	Choosing how to die should be a basic human right	Literature	+

No	Clinical area	Yrs qualified	Yrs in Speciality	Qualifications	Religiosity	Religious group	Age	Gender	Factor defining sort
1	ICU	<5	<5	RGN&B	Mod	Christian	25	F	
2	ICU	6-10	6-10	RGN&Dip,PRDip,B	Mod	CofE	36	F	
3	ICU	16-20	11-15	RGN, PRDip	None		39	F	
4	ICU	<5	<5	RGN&B	Mod		21	M	1
5	ICU	16-20	6-10	RGN, PRDip	None		36	F	
6	ICU	<5	<5	RGN&B	Mod		24	F	1
7	ICU	<5	<5	RGN&B	None		22	M	1
8	ICU	>20	>20	RGN,PRDip,B	None		44	F	
9	ICU	11-15	6-10	RGN,PRDip	Mod	Buddhist	50	M	3
10	ICU	11-15	11-15	RGN, PRDip	Mod	RC	36	M	1
11	ICU	>20	16-20	RGN	None		45	F	3
12	ICU	16-20	6-10	RGN,PRDip,	None		39	F	1
13	ICU	>20	11-15	RGN,PRDip,B	None		42	M	3
14	Hospice	16-20	16-20	RGN,PRDip,B,M	None		39	F	2
15	ICU	16-20	11-15	RGN, PRDip	None		37	M	1
16	ICU	6-10	<5	RGN&Dip, PRDip	Strong	RC	35	M	
17	ICU	>20	16-20	RGN,PRDip,B	Mod		47	F	3
18	ICU	<5	<5	RGN&Dip	None		31	M	1
19	Hospice	>20	16-20	RGN,PRDip	None		52	F	2
20	ICU	6-10	6-10	RGN, PRDip	None		40	F	1
21	ICU	<5	<5	RGN&Dip	None		26	F	1
22	ICU	11-15	11-15	RGN, PRDip	None		35	M	1
23	Hospice	16-20	11-15	RGN,PRDip	Strong	CofE	39	F	2
24	Hospice	16-20	6-10	RGN,PRDip,B	None		39	F	1
25	Hospice	>20	>20	RGN	Mod		54	F	2
26	Hospice	>20	<5	RGN	Strong	RC	53	F	2
27	Hospice	>20	<5	RGN	Mod	CofE	41	F	1
28	Hospice	<5	<5	RGN&B, PRDip	None		58	F	
29	Hospice	11-15	6-10	RGN&Dip,PRDip,B	Strong	CofE	35	F	3
30	Hospice	<5	<5	RGN&Dip, B	Strong	Christian	30	F	2
31	Hospice	>20	<5	RGN	Mod		49	F	2
32	Hospice	<5	<5	RGN&Dip	None		48	F	
33	Hospice	6-10	<5	RGN, PRDip	Mod		43	F	2
34	Hospice	6-10	<5	RGN&Dip, B	Mod	RC	32	F	2

No	Clinical area	Yrs qualified	Yrs in Speciality	Qualifications	Religiosity	Religious group	Age	Gender	Factor Exemplar
35	N.Home	>20	11-15	RGN	None		48	F	1
36	N.Home	11-15	<5	RGN	None		37	F	1
37	N.Home	11-15	6-10	RGN&Dip, B	None		53	F	2
38	Hospice	11-15	<5	RGN,PRDip	Mod		34	M	3
39	Hospice	16-20	6-10	RGN,PRDip,B	Mod	Buddhist	36	F	
40	N.Home	11-15	11-15	RGN, PRDip	Mod		58	M	3
41	Hospice	>20	<5	RGN	None		50	F	3
42	Hospice	>20	6-10	RGN	None		49	F	1
43	N.Home	>20	<5	RGN	Mod	United Reform	47	F	2
44	Hospice	6-10	6-10	RGN&Dip, PRDip	None		30	F	1
45	Hospice	16-20	<5	RGN,PRDip,B	None		35	F	3
46	N.Home	>20	<5	RGN	Strong	Hindu	54	M	2
47	N.Home	>20	<6-10	RGN	Mod	RC	52	F	1
48	N.Home	>20	<5	RGN	Mod	7th Day Adv	44	F	2
49	N.Home	11-15	<5	RGN	Strong	Pentecostal	36	F	2
50	N.Home	>20	<5	RGN	Mod	Christian	48	F	
51	N.Home	>20	6-10	RGN, PRDip	Mod		52	F	3
52	N.Home	11-15	11-15	RGN	Mod		37	F	2
53	N.Home	6-10	<5	RGN	Strong	Christian	34	M	2
54	N.Home	<5	<5	RGN&B	Mod	Muslim	28	M	2
55	N.Home	>20	<5	RGN &Dip	Strong	RC	46	F	2
56	N.Home	16-20	16-20	RGN	Mod		53	F	
57	N.Home	6-10	<5	RGN&Dip	Strong	Christian	30	F	2
58	N.Home	11-15	11-15	RGN,PRDip	Strong	Christian	38	M	
59	N.Home	16-20	16-20	RGN	Mod		57	F	
60	N.Home	>20	6-10	RGN,PRDip,M	Mod	CofE	52	F	3

Qualifications Key

RGN	Registered General Nurse	RGN & Dip	Diploma awarded with registration
RGN & B	Degree awarded with registration	PRDip	Post-registration Diploma
B	First Degree	M	Masters Degree

NURSES ATTITUDES TO EUTHANASIA QUESTIONNAIRE

- Thank you very much for agreeing to help with my research. This project would not be possible without your help

- The following questionnaire is concerned with what you think about active euthanasia for terminally ill patients.

- The questionnaire begins with a fictitious scenario and questions related to the scenario. Please read the scenario and answer the questions following in before moving onto the next scenario. There are three scenarios in total.

- Following the scenarios there are some general questions about euthanasia.

- The final part of the questionnaire asks questions about you.

- All your answers will be completely confidential and neither you nor your institution will be identified in any way

- When you have completed the questionnaire, please put it in the envelope provided and seal it.

Please read this scenario and answer the questions following it

Mary Smith is a sixty-eight year old retired civil servant with a history of chronic obstructive pulmonary disease (COPD). She has been treated with bronchodilators and has oxygen therapy at home. Mary is breathless, even at rest, and needs to sleep upright in a chair. Recently, Mary was found collapsed at home having been without any medical assistance for two days and admitted with a diagnosis of a perforated diverticulum and peritonitis. Following major abdominal surgery involving a bowel resection and construction of a colostomy, Mary was admitted to ICU. She required mechanical ventilation for two days post-operatively, but has not made any progress. There is little response to inotropic drugs and she is now in renal failure which is being treated with haemofiltration. The sedation has been stopped and Mary has been extubated, but her respiratory function is severely compromised by the underlying pulmonary disease. A morphine infusion has been set up to reduce Mary's pain, but there is concern about the effect of this on her respiratory function.
From previous admissions to treat her COPD, Mary is well known to the nurses in the ICU, and is aware of the severity of her condition. Mary has previously told the nurses that she has written a living will and is fed up with life and wishes that that she could die peacefully in her sleep. She has a diminishing quality of life especially as she now has a stoma to deal with alongside her other problems. Mary's family are supportive of her wishes.

Please circle one number for each of the following questions:

1 I would intend to give Mary Smith a lethal dose of medication in this situation
Definitely would not 1 2 3 4 5 6 7 Definitely would

2 In this situation, I would want to give Mary Smith a lethal dose of medication
Definitely would not 1 2 3 4 5 6 7 Definitely would

3 Giving Mary Smith a lethal injection would allow her to have a pain free death
Unlikely 1 2 3 4 5 6 7 Likely

4 Mary Smith having a pain free death is
Bad 1 2 3 4 5 6 7 Good

5 Mary Smith's family would not need to see her suffer if she was given a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

6 Mary Smith's family not seeing her suffer is
Bad 1 2 3 4 5 6 7 Good

7 Mary Smith could decide when she wants to die by a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

8 Mary Smith being able to decide when she wants to die is
Bad 1 2 3 4 5 6 7 Good

9 Giving Mary Smith a lethal dose of medication would be a cost efficient use of healthcare resources
Unlikely 1 2 3 4 5 6 7 Likely

10 Using healthcare resources efficiently is
Bad 1 2 3 4 5 6 7 Good

11 Giving Mary Smith a lethal dose would respect her wishes
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

12 Respecting Mary Smith's wishes is
Bad 1 2 3 4 5 6 7 Good

13 Giving Mary Smith a lethal dose of medication would end her suffering
Unlikely 1 2 3 4 5 6 7 Likely

14 Ending Mary Smith's suffering is
Bad 1 2 3 4 5 6 7 Good

15 Giving Mary Smith a lethal dose of medication would make the nurse feel guilty
Unlikely 1 2 3 4 5 6 7 Likely

16 The nurse feeling guilty is
Bad 1 2 3 4 5 6 7 Good

17 Giving Mary Smith a lethal dose of medication would reduce the general public's trust in nurses
Unlikely 1 2 3 4 5 6 7 Likely

18 Less public trust in nurses is
Bad 1 2 3 4 5 6 7 Good

19 Having guidelines to follow would make it
More difficult 1 2 3 4 5 6 7 Easier
for me to administer a lethal dose of medication to Mary Smith

20 If it was not against the law, administering a lethal dose of medication to Mary Smith would be
More difficult 1 2 3 4 5 6 7 Easier

21 Having the agreement of the multidisciplinary team would make administering a lethal dose of medication to Mary Smith
More difficult 1 2 3 4 5 6 7 Easier

22 Having the agreement of Mary Smith's family would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

23 Being directly involved in Mary Smith's care would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

24 Believing that Mary Smith's family had influenced her decision would make it

More difficult to administer a lethal dose of medication	1	2	3	4	5	6	7	Easier

25 Being convinced that Mary Smith wanted to die would make it

More difficult to administer a lethal dose of medication	1	2	3	4	5	6	7	Easier

26 For me to give Mary Smith a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

27 For me <u>not</u> to give Mary Smith a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

28 Mary Smith's family would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

29 How much do you want to do what Mary Smith's family think you should

Not at all	1	2	3	4	5	6	7	Very much

30 Mary Smith would want me to give her a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

31 How much do you want to do what Mary Smith wants

Not at all	1	2	3	4	5	6	7	Very much

32 The other nurses I work with would want me to give Mary Smith a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

33 How much do you want to do what the other nurses you work with think you should

Not at all	1	2	3	4	5	6	7	Very much

34 Other members of the multidisciplinary team would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

35 How much do you want to do what the other members of the multidisciplinary team think you should

Not at all	1	2	3	4	5	6	7	Very much

36 How much control do you feel you have over giving Mary Smith a lethal dose of medication
No control 1 2 3 4 5 6 7 Complete control

37 If I wanted to I could easily administer a lethal dose of medication to Mary Smith
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

38 Whether I administered a lethal dose of medication to Mary Smith would be entirely up to me
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

39 I would like to give Mary Smith a lethal dose of medication, but I don't know if I could
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

40 People important to me would
Strongly disapprove 1 2 3 4 5 6 7 Strongly approve
of me giving Mary Smith a lethal dose of medication

41 People who are important to me would want me to give Mary Smith a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

42 For me to give Mary Smith a lethal dose of medication would be morally wrong
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

43 Giving Mary Smith a lethal dose of medication would be the right thing to do
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

44 How ill do you think Mary Smith is?
Not at all ill 1 2 3 4 5 6 7 Extremely ill

45 How distressed do you think Mary Smith is?
Not at all distressed 1 2 3 4 5 6 7 Extremely distressed

46 How would you rate Mary Smith's quality of life?
Extremely poor 1 2 3 4 5 6 7 Extremely good

47 How severe do you think Mary Smith's symptoms are?
Not at all severe 1 2 3 4 5 6 7 Extremely severe

48 How much do you think Mary Smith wants to die?
Definitely does not 1 2 3 4 5 6 7 Definitely does

Please read this scenario and answer the questions following it

Joan Green is a sixty-five year old former personnel officer who has lived in the nursing home for three years. Joan was admitted to a nursing home because she became increasingly frail and unable to cope living on her own at home. A week ago Joan suffered a cerebrovascular accident (CVA) and has remained barely conscious since. Prior to the CVA, Joan was independent and only relied upon the nursing staff to help her get in and out of the bath. Joan is being fed via a naso-gastric tube which she has removed on numerous occasions. She unable to speak, or sit upright, and is doubly incontinent. She has lost weight, and due to her immobility, there is a risk of Joan developing pressure sores. While there is no chance of Joan making a substantial recovery, with good nursing care, she may live for several months. Joan has already written a living will explaining how she would not like to be given life saving treatment if it meant that her quality of life was compromised. Joan has told the nurses that she is not afraid of dying, and would prefer not to live rather than be dependent upon others. Joan's family are supportive of her wishes.

Please circle one number for each of the following questions:

1 I would intend to give Joan Green a lethal dose of medication in this situation
Definitely would not 1 2 3 4 5 6 7 Definitely would

2 In this situation, I would want to give Joan Green a lethal dose of medication
Definitely would not 1 2 3 4 5 6 7 Definitely would

3 Giving Joan Green a lethal injection would allow her to have a pain free death
Unlikely 1 2 3 4 5 6 7 Likely

4 Joan Green having a pain free death is
Bad 1 2 3 4 5 6 7 Good

5 Joan Green's family would not need to see her suffer if she was given a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

6 Joan Green's family not seeing her suffer is
Bad 1 2 3 4 5 6 7 Good

7 Joan Green could decide when she wants to die by a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

8 Joan Green being able to decide when she wants to die is
Bad 1 2 3 4 5 6 7 Good

9 Giving Joan Green a lethal dose of medication would be a cost efficient use of healthcare resources
Unlikely 1 2 3 4 5 6 7 Likely

10 Using healthcare resources efficiently is
Bad 1 2 3 4 5 6 7 Good

11 Giving Joan Green a lethal dose would respect her wishes
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

12 Respecting Joan Green's wishes is
Bad 1 2 3 4 5 6 7 Good

13 Giving Joan Green a lethal dose of medication would end her suffering
Unlikely 1 2 3 4 5 6 7 Likely

14 Ending Joan Green's suffering is
Bad 1 2 3 4 5 6 7 Good

15 Giving Joan Green a lethal dose of medication would make the nurse feel guilty
Unlikely 1 2 3 4 5 6 7 Likely

16 The nurse feeling guilty is
Bad 1 2 3 4 5 6 7 Good

17 Giving Joan Green a lethal dose of medication would reduce the general public's trust in nurses
Unlikely 1 2 3 4 5 6 7 Likely

18 Less public trust in nurses is
Bad 1 2 3 4 5 6 7 Good

19 Having guidelines to follow would make it
More difficult 1 2 3 4 5 6 7 Easier
for me to administer a lethal dose of medication to Joan Green

20 If it was not against the law, administering a lethal dose of medication to Joan Green would be
More difficult 1 2 3 4 5 6 7 Easier

21 Having the agreement of the multidisciplinary team would make administering a lethal dose of medication to Joan Green
More difficult 1 2 3 4 5 6 7 Easier

22 Having the agreement of Joan Green's family would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

23 Being directly involved in Joan Green's care would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

24 Believing that Joan Green's family had influenced her decision would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication

25 Being convinced that Joan Green wanted to die would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication

26 For me to give Joan Green a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

27 For me not to give Joan Green a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

28 Joan Green's family would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

29 How much do you want to do what Joan Green's family think you should

Not at all	1	2	3	4	5	6	7	Very much

30 Joan Green would want me to give her a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

31 How much do you want to do what Joan Green wants

Not at all	1	2	3	4	5	6	7	Very much

32 The other nurses I work with would want me to give Joan Green a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

33 How much do you want to do what the other nurses you work with think you should

Not at all	1	2	3	4	5	6	7	Very much

34 Other members of the multidisciplinary team would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

35 How much do you want to do what the other members of the multidisciplinary team think you should

Not at all	1	2	3	4	5	6	7	Very much

36 How much control do you feel you have over giving Joan Green a lethal dose of medication

No control	1	2	3	4	5	6	7	Complete control

37 If I wanted to I could easily administer a lethal dose of medication to Joan Green

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

38 Whether I administered a lethal dose of medication to Joan Green would be entirely up to me
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

39 I would like to give Joan Green a lethal dose of medication, but I don't know if I could
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

40 People important to me would
Strongly disapprove 1 2 3 4 5 6 7 Strongly approve
of me giving Joan Green a lethal dose of medication

41 People who are important to me would want me to give Joan Green a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

42 For me to give Joan Green a lethal dose of medication would be morally wrong
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

43 Giving Joan Green a lethal dose of medication would be the right thing to do
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

44 How ill do you think Joan Green is?
Not at all ill 1 2 3 4 5 6 7 Extremely ill

45 How distressed do you think Joan Green is?
Not at all distressed 1 2 3 4 5 6 7 Extremely distressed

46 How would you rate Joan Green's quality of life?
Extremely poor 1 2 3 4 5 6 7 Extremely good

47 How severe do you think Joan Green's symptoms are?
Not at all severe 1 2 3 4 5 6 7 Extremely severe

48 How much do you think Joan Green wants to die?
Definitely does not 1 2 3 4 5 6 7 Definitely does

Please read this scenario and answer the questions following it

Christine Jones is a sixty-six year old former secondary school teacher with ovarian cancer who has been admitted to a hospice for respite care and symptom control. Christine's cancer was diagnosed two years ago, and the tumour was removed, a hysterectomy performed followed by 1st and 2nd line chemotherapy. She now has extensive local disease, a partial bowel obstruction and vaginal rectal fistula. She is experiencing uncontrollable nausea and vomiting, profound cachexia, and has gross abdominal ascites. Christine is having Cyclosine and Diamorphine administered via a syringe driver and although her pain is reasonably well controlled, she is very distressed by the symptoms she experiencing as a result of the bowel obstruction and fistula. She could live for a further six months.
Christine has accepted her diagnosis, and is aware that no further treatment for the underlying disease is possible. She is however very concerned about the progress of her disease and has already written a living will expressing how she wants to be treated during this terminal stage. Christine has told the nurses involved in her care that she has had enough and wishes wants to go sleep and not wake up. Christine's family are supportive of her wishes.

Please circle one number for each of the following questions:

1 I would intend to give Christine Jones a lethal dose of medication in this situation
Definitely would not 1 2 3 4 5 6 7 Definitely would

2 In this situation, I would want to give Christine Jones a lethal dose of medication
Definitely would not 1 2 3 4 5 6 7 Definitely would

3 Giving Christine Jones a lethal injection would allow her to have a pain free death
Unlikely 1 2 3 4 5 6 7 Likely

4 Christine Jones having a pain free death is
Bad 1 2 3 4 5 6 7 Good

6 Christine Jones's family would not need to see her suffer if she was given a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

6 Christine Jones's family not seeing her suffer is
Bad 1 2 3 4 5 6 7 Good

7 Christine Jones could decide when she wants to die by a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

8 Christine Jones being able to decide when she wants to die is
Bad 1 2 3 4 5 6 7 Good

9 Giving Christine Jones a lethal dose of medication would be a cost efficient use of healthcare resources
Unlikely 1 2 3 4 5 6 7 Likely

10 Using healthcare resources efficiently is
Bad 1 2 3 4 5 6 7 Good

11 Giving Christine Jones a lethal dose would respect her wishes
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

12 Respecting Christine Jones's wishes is
Bad 1 2 3 4 5 6 7 Good

13 Giving Christine Jones a lethal dose of medication would end her suffering
Unlikely 1 2 3 4 5 6 7 Likely

14 Ending Christine Jones's suffering is
Bad 1 2 3 4 5 6 7 Good

15 Giving Christine Jones a lethal dose of medication would make the nurse feel guilty
Unlikely 1 2 3 4 5 6 7 Likely

16 The nurse feeling guilty is
Bad 1 2 3 4 5 6 7 Good

17 Giving Christine Jones a lethal dose of medication would reduce the general public's trust in nurses
Unlikely 1 2 3 4 5 6 7 Likely

18 Less public trust in nurses is
Bad 1 2 3 4 5 6 7 Good

19 Having guidelines to follow would make it
More difficult 1 2 3 4 5 6 7 Easier
for me to administer a lethal dose of medication to Christine Jones

20 If it was not against the law, administering a lethal dose of medication to Christine Jones would be
More difficult 1 2 3 4 5 6 7 Easier

21 Having the agreement of the multidisciplinary team would make administering a lethal dose of medication to Christine Jones
More difficult 1 2 3 4 5 6 7 Easier

22 Having the agreement of Christine Jones's family would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

23 Being directly involved in Christine Jones's care would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication to her

24 Believing that Christine Jones's family had influenced her decision would make it
More difficult 1 2 3 4 5 6 7 Easier
to administer a lethal dose of medication

25 Being convinced that Christine Jones wanted to die would make it

More difficult to administer a lethal dose of medication	1	2	3	4	5	6	7	Easier

26 For me to give Christine Jones a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

27 For me <u>not</u> to give Christine Jones a lethal dose of medication would be

Bad	1	2	3	4	5	6	7	Good
Wrong	1	2	3	4	5	6	7	Right
Repulsive	1	2	3	4	5	6	7	Attractive
Unjustified	1	2	3	4	5	6	7	Justified
Unhelpful	1	2	3	4	5	6	7	Helpful
Unsatisfactory	1	2	3	4	5	6	7	Satisfactory
Foolish	1	2	3	4	5	6	7	Wise

28 Christine Jones's family would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

29 How much do you want to do what Christine Jones's family think you should

Not at all	1	2	3	4	5	6	7	Very much

30 Christine Jones would want me to give her a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

31 How much do you want to do what Christine Jones wants

Not at all	1	2	3	4	5	6	7	Very much

32 The other nurses I work with would want me to give Christine Jones a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

33 How much do you want to do what the other nurses you work with think you should

Not at all	1	2	3	4	5	6	7	Very much

34 Other members of the multidisciplinary team would want me to administer a lethal dose of medication

Unlikely	1	2	3	4	5	6	7	Likely

35 How much do you want to do what the other members of the multidisciplinary team think you should

Not at all	1	2	3	4	5	6	7	Very much

36 How much control do you feel you have over giving Christine Jones a lethal dose of medication

No control control	1	2	3	4	5	6	7	Complete

37 If I wanted to I could easily administer a lethal dose of medication to Christine Jones
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

39 Whether I administered a lethal dose of medication to Christine Jones would be entirely up to me
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

39 I would like to give Christine Jones a lethal dose of medication, but I don't know if I could
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

40 People important to me would
Strongly disapprove 1 2 3 4 5 6 7 Strongly approve
of me giving Christine Jones a lethal dose of medication

41 People who are important to me would want me to give Christine Jones a lethal dose of medication
Unlikely 1 2 3 4 5 6 7 Likely

42 For me to give Christine Jones a lethal dose of medication would be morally wrong
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

43 Giving Christine Jones a lethal dose of medication would be the right thing to do
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

44 How ill do you think Christine Jones is?
Not at all ill 1 2 3 4 5 6 7 Extremely ill

45 How distressed do you think Christine Jones is?
Not at all distressed 1 2 3 4 5 6 7 Extremely distressed

46 How would you rate Christine Jones's quality of life?
Extremely poor 1 2 3 4 5 6 7 Extremely good

47 How severe do you think Christine Jones's symptoms are?
Not at all severe 1 2 3 4 5 6 7 Extremely severe

48 How much do you think Christine Jones wants to die?
Definitely does not 1 2 3 4 5 6 7 Definitely does

Some more general questions about euthanasia

Please tick the box that most closely matches your view for each statement

	Strongly agree	agree	uncertain	disagree	Strongly disagree
Administering a lethal dose of medication is wrong regardless of extenuating circumstances					
Life at any price or condition is better than not living					
Dignity of life should allow one the privilege of deciding the appropriate time to die					
The prolongation of life just for the sake of longevity seems personally demeaning					
Assisting suicide is more acceptable than administering a lethal dose of medication					
A nurse should be able to refuse to administer a lethal dose of medication					
Administering a lethal dose of medication is too great a responsibility for a nurse					

Finally, some questions about yourself

1 In what year did you qualify as a nurse?

[ ]

2 Do you work in

An ICU	
A nursing home	
A hospice	

3 How long have you worked in this speciality?

<5 years	
6-10 years	
11-15 years	
16-20 years	
21-25 years	
> 25 years	

4 What qualifications do you have? (tick all that apply)

First level registration (e.g. SRN, RN, RMN)	
Diploma with first level registration (e.g. from a project 2000 course)	
Post -registration diploma (e.g. ENB 100, 218, 934)	
Bachelors degree (e.g. BA, BSc, BHSc)	
Masters degree (e.g. MA, MSc)	
Research degree (e.g. MPhil, PhD)	

5 How would describe your religious beliefs? (tick all that apply)

I hold strong religious views and attend services regularly	
I hold religious views but do not often attend religious services	
I hold no religious views	
A committed Christian	
Roman Catholic	
Protestant	
Jewish	
Buddhist	
Sikh	
Muslim	
Other	

6 How old are you?

7 Are you?

Male	Female